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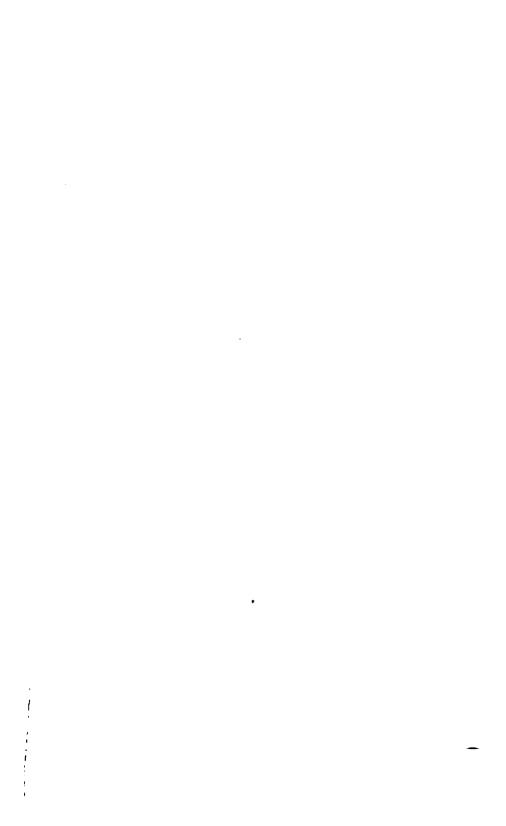
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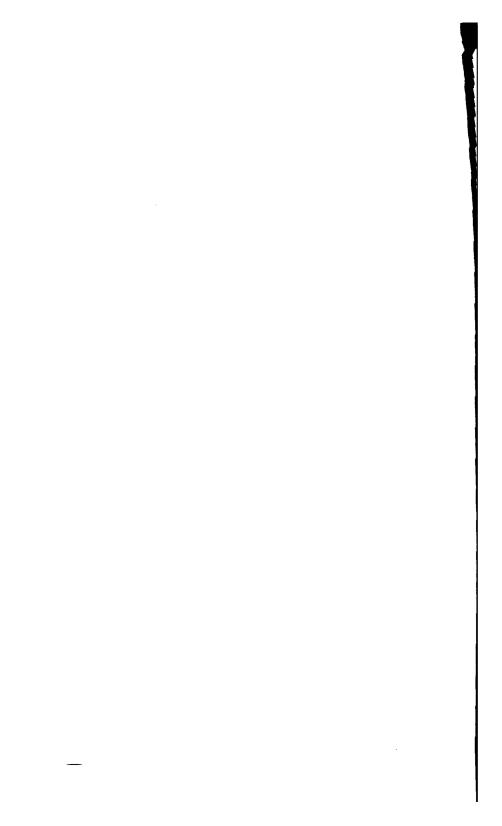
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THE

## LANGUAGE OF SPECIFICATIONS

OF

# Letters Patent for Inbentions:

WITH THE

AUTHORITIES AND DECISIONS IN ALL THE IMPORTANT AND LATEST CASES.

BY

JOHN MACGREGOR, ESQ.

OF THE INNER TEMPLE, BARRISTER-AT-LAW.

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## WILLIAM H. HINDMARCH, ESQ.

WHOSE LEARNING AND SKILL IN PATENT LAW ARE ACKNOWLEDGED AS PRE-EMINENT,

## This Work is Bedicated,.

IN REMEMBRANCE OF THE PLEASANT AND PROFITABLE YEARS SPENT IN HIS CHAMBERS,

AND AS A TOKEN OF THE AFFECTIONATE REGARD FOR A PRIVATE FRIENDSHIP

STILL ENJOYED

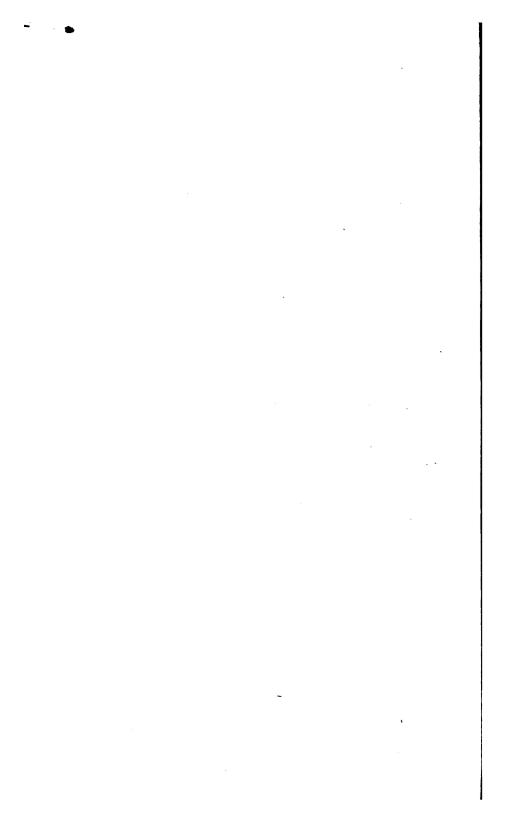
BY HIS FORMER PUPIL,

THE AUTHOR.

.

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## LANGUAGE OF SPECIFICATIONS.

### INTRODUCTION.

THE Statute Law permits any person having a certain property in an invention to enter into an agreement with the public as to the use of the invention.

The principal conditions of this agreement are laid down in the Patent Law Amendment Act 1852 (a); and a document called the "Letters Patent" sets forth in each case the terms of the agreement in a form fixed by law. These conditions or terms relate to the nature and object of the invention, the qualification and duties of the "Patentee," and the privileges to be enjoyed by him and by the public.

We are concerned at present with only one part of these conditions, by which it is required that certain documents, called the Complete Specification, the Provisional Specification, and the Final Specification (b), when provided as respectively directed, should be so prepared as by their language sufficiently to indicate the invention concerning which the agreement is made.

Patent Office, to distinguish the "specification" from "the provisional specification."

<sup>(</sup>a) 15 & 16 Vic. c. 83.

<sup>(</sup>b) The term "final specification" is not used in the Act; but it is employed in the Great Seal

Omitting further notice, then, of what is prescribed as to the other requisites necessary, and the formalities to be observed in connection with specifications, we shall consider only the *language* to be employed in these instruments for the proper fulfilment of the conditions in regard to each. (a)

The requisites of this language may be gathered generally from the words of the statute referred to; but they are set forth with greater accuracy and completeness in the decisions of the Courts upon specifications in cases of infringement and scire facias. Much, however, may be learned in addition from the maxims laid down for guidance by those who have carefully studied the subject, as well as from the specifications prepared by able and experienced practitioners.

It will be observed that the observations which follow are gathered from all these sources.

<sup>(</sup>a) Rules have been made as paper for writing and drawings, to the size and form of the &c. See Appendix (A).

### SPECIFICATIONS IN GENERAL.

THE effect of the provisions of the Act as to the cha- Effect of the racter of the instruments to be employed in defining Act. an invention may be stated generally as follows.

The applicant for letters patent must leave with his petition either a "provisional specification," or a " complete specification."

If a "provisional specification" is left, it must be followed in a certain time by a (final) "specification." Accordingly, the language of each of these three instruments must be considered separately in relation to their formal parts; but the complete specification and the final specification may be classed together when considering the language to be employed in their descriptive parts. (a)

(a) "Patents for inventions are usually procured through the agency of a class of gentlemen who practise as patent agents; and inventors generally find it better to have recourse to the assistance of those gentlemen, than to attempt to obtain

their patents themselves. Indeed, there can be no doubt that it is really more economical for an inventor to employ a patent agent, than to act for himself."-Hindmarch on Patents, 503.

## PROVISIONAL SPECIFICATION.

Former practice.

In former days it was the practice to grant letters patent for an invention described only by its title. (a) Afterwards the enrolment of a specification was required, to ascertain more distinctly the invention to be protected.

In course of time it became usual, and at length it was made obligatory (b), to lodge, with the title, an "outline description" or "deposit paper" describing the leading features of the invention, to be afterwards more accurately defined by the specification.

Words of the Act.

By section 6. of the Act it is directed that "every petition for the grant of letters patent for an invention, and the declaration required to accompany such petition, shall be left at the office of the Commissioners; and there shall be left therewith a statement in writing, hereinafter called the provisional specification, signed by or on behalf of the applicant for letters patent, describing the nature of the said invention."

Present practice. The provisional specification is to some extent a substitute for the deposit paper (c); but as the contro-

- (a) Until April 1712. See Webster on Letters Patent, p. 66. note (p). See post, p. 13., note (c).
  - (b) Nov. 2. 1850.
- (c) After Jan. 15. 1851, it was allowed the patentee to cancel any portion of his outline or deposit paper, until enrolment of the specification. But

by the new Act it is evidently the intention of the legislature that the heads of an invention should be set forth by the provisional specification, so as to determine, from the day of the application for a patent, the nature of the invention to be protected. A patentee is allowed (as a matter of courtesy)

versies concerning the language of this instrument are usually settled before the law officers to whom an application is referred, and in the presence only of persons who have given formal notice of opposition in the case, there are few decisions recorded which could guide us as to the terms imposed with regard to the language of the provisional specification when conflicts arise between inventions alleged to be similar, and both are sought to be protected at the same time.

In the case of Simpson and Isaacs' patent (a) the Reference Lord Chancellor, in reply to an application to remit the dispute as to priority of invention to the law officer who had already made his report, said, "If I were to Simpson's consult my own ease I should be well disposed to send the case back to the law advisers of the Crown, but there must be some end to such references."

After an ineffectual opposition before the law officers Martin's case. an objection was raised at the Great Seal to the granting of, Martin & Hyam's patent, on the ground that the shape, material, and mode of manufacture described in the specification were each old. The Lord Chancellor, however, allowed the patent to be sealed, leaving the question of novelty to be decided by scire facias if desired. (b)

at any time to inspect his own documents; but no amendment or alteration may be made without the official allowance of the law officers. This is granted without difficulty in cases of clerical errors or of omissions made "per incuriam." See Rule IX. (15 Oct. 1582), Appendix (A). By sec. 39. of the Act the provisions of former Acts as to disclaimers are continued with respect to any specification

filed under the Act. As the provisional specification is not filed, but merely left and received or recorded, it would seem that disclaimers are not applicable to it. See Observations on the Provisional Specification, 18 Jur. part 2. p. 104. But see post, p. 90. note (c).

- (a) Weekly Rep. 1852-3, p. 259.
- (b) Re Martin & Hyam's Pat. Weekly Rep. 1854-5, p. 433.

It appears that the appointment of a Superintendent of Specifications was intended to afford the Lord Chancellor assistance when requisite in disputes as to the priority of an invention or its alleged identity with another already claiming protection, but not as to the absolute novelty of an invention.

Stolls' case.

The Lord Chancellor ordered a reference (by consent of the parties) (a) to Mr. B. Woodcroft (the Superintendent of Specifications), to ascertain whether a patent applied for by Stolls infringed upon the patent of Bernard. Cranworth L. C. said, "I have seen Mr. Woodcroft, who considers that Mr. Bernard's patent has been materially infringed. He considers that three of the nine articles of the petitioner (Stolls) specification are infringements on Mr. Bernard's patent, and that one of them is not a new invention; I must, therefore, refuse this application."

Lowe's case.

Another similar case has lately occurred (February 1856), in which Lowe's patent and Eyre's patent for propelling were referred to Mr. Woodcroft to report as to their interference with each other. The point referred to this officer in these cases, as already mentioned, is not the absolute novelty of either invention, but the identity or similarity alleged to exist between two inventions.

Language of provisional specifications.

Information as to the language to be employed in provisional specifications is to be gathered chiefly from a consideration of the words of the Act already quoted (p. 4.), by which they are made necessary, from the brief directions in the form given in the schedule to

See also Adamson's patent (prior user), The Times, April 21. 1856; and Daine's patent (terms

imposed), The Times, April 10.

(a) Re Stolls' patent, 21 L. T. 233.

the Act, and from examples of provisional specifications themselves. (a)

The following form for the provisional specification is given in the schedule to the Act: —

No.

I [applicant's name] do hereby declare the nature of Form. the said invention for [insert title as in petition] to be as follows: — [insert description of the invention]. Dated this day of . A.D. .

[ To be signed by applicant or his agent.]

The provisional specification then contains (besides Parts. merely formal parts) (1) the title of the invention, and (2) a description of the nature of the invention.

As the *title* also forms part of the final specification (b), and of the complete specification (c) (when that is used), and must in each case be harmonious with the rest of the document (d), it is necessary to devote special attention to the language of the title.

(a) See Appendix; also Cook v. Pearce, 8 Q. B. 1044. "The most accurate notion of the nature and effect of the provisional specification will be gained by regarding it as the title of the patent, required, indeed, to enter more into detail than was necessary under the whole law, but otherwise having the same operation in defining and limiting the subject matter of claim in

the specification." Article in the Jurist, vol. xviii. p. 104,

- (b) See form, post, p. 23.
- (c) See post, p. 20,
- (d) The letters patent are to be sealed (sec. 15. of the Act) for the "said invention," and by these words the provisional and final specification are connected, although neither document refers by name to the other.

#### THE TITLE.

How allowed or amended.

By sec. 8. of the Act, it is provided that "in case the title of the invention, or the provisional specification, be too large or insufficient, it shall be lawful for the law officer to whom the same is referred to allow or require the same to be amended."

This discretionary power imposes a restraint upon the free choice of a title; but it is a restraint almost nominal, and is seldom exercised except in a case where it seems advisable to distinguish two inventions apparently identical. (a)

Objections.

An objection cannot be taken to the title of a patent, unless some fraud upon the Crown or detriment to the public can be shown. (b)

Objections, indeed, are seldom brought to bear upon the title per se, but upon its disagreement with the rest of the specification, on the ground that the title, as an epitome of the invention, includes what the specification does not describe, or omits an invention, or part of it, described in the specification. (c) While the title may be held bad as incongruous or as too narrow, generality in its words may be restrained or explained by the specification. (d) "The description in the patent (i.e. the title), must unquestionably give some idea,

- (a) And even this is seldom done, unless the attention of the law officer is called to the point by the parties interested, or two similar titles come together before the same law officer. See antè, p. 5. For alterations of the title by disclaimer, see post, p. 29. note (f) and "Disclaimer."
- (b) Tindal C. J., in referring to Cook v. Pearce, 13 L. J. Q. B. 189. Nickels v. Haslam, 7 M. & G. 378.
- (c) See Smith's epitome of the laws of Patents, p. 19.
  - (d) Hind. on Pat. p. 47.

TITLE.

and, so far as it goes, a true idea of the alleged invention, though the specification may be brought in aid to explain it." (a)

The following are examples of titles held bad for in- Bad titles. congruity or variance.

The title of Wheeler's patent, March 1817 [4112] (b), Wheeler's. was, "A new and improved method of drying and preparing malt," whereas the specification described a process for converting malt into a colouring matter by exposing it to a high temperature. Upon this Abbott C. J. said, "We think the invention mentioned in this specification so entirely different from that mentioned in the patent, as that the latter (if any such there be) remains wholly undescribed and unspecified." (c)

"Malt" was the name in the title designating the material to be operated upon; but the word was so used as to appear to mean the material resulting from the process. "But if it had been shown that an article such as that produced by the patent process was known by the name of malt, then it is conceived that the objection on the ground of variance would have been removed." (d)

- (a) Lyndhurst L. C., Sturtz v. De la Rue, 5 Rus. 327.
- (b) The number enclosed in brackets after the date of the patent is given in cases where reference may be required to the "Chronological Index," and other lists published by the Commissioners. These works may be consulted by the public at the Great Seal Patent Office library, which contains also many scientific, mechanical, and historical books of interest to inventors, lists of foreign patents, and the printed specifications

of English patents. A Journal is published by authority at this Office, and models, portraits, &c., connected with science and art, are also made available.

Every facility is afforded for reading, referring, and copying what is desired; and assistance is most readily given by the librarian and officers who superintend this new department under the direction of Mr. Bennet Woodcroft.

- (c) King v. Wheeler, 2 B. & Ald. 345. (352.)
  - (d) Hind. on Pat. 478.

Metcalfe's.

So Metcalfe's patent, September 1816 [4065], for a "tapered head or hair-brush," was held bad, as the title was at variance with the specification, which described the invention to be for a brush with only some parts "tapered," and in the absence of proof that the words "tapered brush" had acquired by usage the perverted meaning given to it in the specification. (a)

Croll's.

The title of Croll's patent, March 1843 [9633], was, "Improvements in the manufacture of gas for the purpose of illumination, and in apparatus used when transmitting and measuring gas or other fluids;" but the invention was described in the specification as "improvements in the manufacture of gas for illumination, and in the apparatus used therein, and when transmitting and measuring gas." It was further shown that the specification described the invention as relating to apparatus used in the manufacture (as well as the transmission and measuring) of gas, by alluding in it, "thirdly, to a mode of manufacturing clay retorts." Held, that the title was too narrow to cover the invention described, and the patent was therefore void. (b)

Cochrane's.

The title of Cochrane's patent was "A method or methods of more completely lighting cities, towns, and villages." (c) In deciding the case of Cochrane v.

- (a) K. v. Metcalfe, 2 Stark. 249.
- (b) Croll v. Edge, 9 C. B. 479.
- (c) The reference to this patent in the "Chronological Index of Patents of Invention" is as follows, the manner of stating the grant and the spelling being examples of the style of the time:

"Cochrane, 3rd March 1813. 3657. A grant unto Sir Thomas Cochrane, commonly called Lord Cochrane, for his invented method or methods of more completely lighting cities, towns, and villages, to hold to him, his exors., admors., and assigns within that part of our united kingdom of Great Britain and Ireland called England, our

TITLE.

Smethurst (a), Le Blanc J. said, "I think the patent cannot be supported; it is in substance a patent for an improvement in street lamps, and should have been so taken."

In Jessop's case the patent was for a watch, the Jessop's. invention being only of a particular movement, and the patent was held void. (b)

"That (Jessop's case) was not a case where the title was simply too vague and general, but where the title of the patent claimed a precise invention larger and more extensive than the invention itself; that is, it was a case of direct variance from the patent." (c)

So in Bovill v. Moore (d) Gibbs C. J. said: "If there Bovill's. existed at the time B. took out his patent, engines for the making of lace, of which his was only an improvement, then his patent ought to have been only for an improvement."

dominion of Wales and the town of Berwick-upon-Tweed, for the term of fourteen years, pursuant to the statute, with a clause to enrol the same within six calendar months from the date thof."

"By writ, &c."

(a) 1 Starkie, 205. "The real objection to the title in Lord Cochrane v. Smethurst was not that the title is too large and general, but that it was too small; for the specification shewed how the lamp might be used not only in the streets, but in churches, theatres, shops, &c., and claimed such an application of it.

"It might as well have been entitled 'An improvement in using glass,' because glass is used in lamps, and lamps in lighting streets." — Alderson B. in Cook v. Pearce, in Ex. Chamber, 13. L. J. Q. B. (in error), 189. See Fisher v. Dewick, 1 W. P. R. 268.

- (b) Jessop's case, cited in Boulton and Watt v. Bull, 2 H. Bl. 463. (476.) (489.) (Web. P. L. 58.) The patent seems to have been granted in 1795, but no number is given in the "Reference Index," at the Patent Office. Probably Jessop being an assignee, the patent was that of Kehlhoff (819), or of Wright (1354).
- (c) Tindal C. J., in judgment on Cook v. Pearce, 13 L. J. p. 189. Q. B. (in error).
  - (d) Dav. P. C. 361. (411.)

Felton's.

Felton's patent, June 1827 [5512], was for "a machine for an expeditious and correct mode of giving a fine edge to knives, razors, soissors, and other cutting instruments."

This was held void because the word "scissors" was used in the title, but the specification described a machine not applicable to scissors. (a)

Explained titles.

As instances of titles rendered less obscure by subsequent parts of the specification, we may notice the following.

The specification of the patent of John George Christ, Feb. 1827 [5463], for "certain improvements in copper and other plate printing," declared that "the nature of the invention consisted in putting a glazed or enamelled surface on paper to be used for copper and other plate printing, by means of white lead and size, whereby the fine lines of the engraving are better exhibited than heretofore, and also in a mode of polishing the said enamel, and the impression after it has been drawn from the plate." Directions were given for preparing the size, and for mixing with it a certain proportion of "the finest and purest chemical white lead, previously ground fine," and then for applying it to the paper, with the process to be followed for drawing off the impression. The specification claimed "as the said invention the glazing and enamel, heretofore described, applied to paper or card-board in manner also heretofore described, for the purpose of copper and other plate printing."

Sturtz v. De la Rue. In giving judgment in the case of Sturtz v. De la Rue (b), Lyndhurst L. C. says (with respect to the above patent): "The title in this patent is for certain improvements in copper and other plate printing.' Copper-plate printing consists of processes involving a

<sup>(</sup>a) Felton v. Greaves, 3 Car. & (b) 5 Rus. Rep. 322. See P. 611.; Holroyd on Pat. p, 116. post, p. 46.

TITLE. 13

great variety of circumstances. An improvement in any one of these circumstances, in the preparation of the paper, for instance, or the damping of it, &c., may truly be called 'an improvement in copper-plate printing."

The title of Cook's patent, Feb. 1840 (8392), was, Cook's. "Improvements in carriages," and it was held that this might be taken to mean improvements in some kinds of carriages, and did not necessarily imply any untrue assertion, though in fact the improvements were not applicable to all carriages. (a)

In Neilson v. Harford (b) the Court said: "The Neilson's title of the patent is for the 'improved application of air.' Though this is ambiguous, it is sufficiently explained by the specification, and is not at variance with it. as was the case in The King v. Wheeler." (c)

The title of De Rosne's patent, Sept. 1830 [6002], De Rosne's. is thus referred to in the "Chronological Index" (vol. ii. p. 897.): - "A grant unto Charles De Rosne, of Communica-Leicester Square, in the county of Middlesex, gentle- foreigner. man, that in consequence of a communication made to him by a certain foreigner residing abroad (d), and in-

(a) Cook v. Pearce, 8 Q. B. 1054 (in the Exchequer Chamber in error, reversing the decision of the Court of Queen's Bench, 8 Q. B. 1044.).

(b) 1 W. P. R. 328. (373.)

(c) 2 B. & Ald. 345. See post, p. 48., and for the title in full, ante, p. 9. Also observations, post, p. 29. note (f) and p. 37. note (g). As an example of a long title, we may turn to that of Narbell's patent, May 1779 [1225], which occupies a whole page quarto of the "Chronological Index." See also Appendix

(d) At the end of the title

of a patent for an invention communicated from abroad, it is usual to add the words "a communication;" but there does not appear to be any definite rule prescribing this practice. Sometimes the name of the person residing abroad is inserted in the statement setting forth the communication. other cases his address is given, as in patents (158) and (194) 1855. After the title of (538), 1853, is inserted "partly a communication." It is be hoped that the law will be altered, so as to make the patent bear the name of the vention by himself, is in possession of an invention for certain improvements in extracting sugar or syrups from cane juice and other substances containing sugar, and in refining sugar and syrups,' to hold, &c. two months."

The specification stated the invention to consist in a means of depriving syrups of colour, and described the process, and stated how the syrup to be submitted to it could be obtained. Held, that the specification sufficiently described the two processes or branches of the invention; namely, the refining of the sugar and the depriving it of colour. (a)

Cooke and Wheatstone's. The title of Cooke and Wheatstone's patent, June 1837 [7390], was, "Improvements in giving signals and sounding alarums in distant places, by means of electric currents transmitted through metallic circuits."

Held, that a circuit might be called a "metallic circuit" if it was so in all that part which formed the substance of the invention claimed; and the use of such by another would therefore be an infringement. (b)

In Berry's patent (c), August 1839 [8194], there were three inaccuracies in the title, which, however, survived. The title was, "A new or improved method of obtaining the spontaneous reproduction of all the images received in the focus of the camera obscura."

1. "New or improved" was objected to at the time.

actual inventor. At present a person having received information from abroad, may be an "inventor" within the meaning of the statute 21 Jac. 1. c. 3. s. 6. See Nickells v. Ross, 8 C. B. 679.; also Edgeberry v. Stephens, 2 Salk. 446. It is not yet decided whether or not the Crown will inquire as to fraud against the foreigner. See 18 Jurist, part 2. p. 150. See also Steedman v. Marsh, 2 Jur. N. S. 391.

- A foreigner may patent his invention in England. Chappell v. Purday, 14 M. & W. 303. (318.)
- (a) De Rosne v. Fairrie, 5 Tyr. 393.
- (b) Elect. Tel. Comp. v. Brett and Little, 10 C. B. 838.
- (c) See Beard v. Egerton, 8 C. B. 165. Berry obtained this patent as agent for Daguerre of Paris, the inventor of daguerré-otype, and assigned it to Beard-

Berry's.

2. The reproduction is not spontaneous. 3. The invention does not give all the images, but only stationary ones. These points, indeed, are inconsequential, but not more so than some which in older cases were held fatal. (a)

Thus also the title of Nickel's patent, Feb. 1842 Nickel's [9253], was for "Improvements in the manufacture of plaited articles;" and the specification, after describing one mode, consisting of a combination of processes, ended thus: - "But what I claim is the mode of weaving plaited fabrics by dividing the warp into separate sheds, as the weaving with the west proceeds." It was contended that there was only a single improvement described; but it was held that there was no objection to the specification. (b)

The above decision appears to overrule that in the Bainbridge v. following case: - A patent was granted to Bainbridge, May 1807 [3043], "for his invented or found out certain improvements on the flageolet or English flute." In the papers delivered in by Mr. Farey, and appended to the Parliamentary report of the Select Committee in 1829, is a reference to the case of Bainbridge v. Wigley (c), in which we are told that the above specification stated that, by the improvement, the instrument produced notes not before produced on the old instrument. It appeared from the evidence that it was a great improvement; but only one new note was produced. Lord Ellenborough held that this would be fatal to the patent, the consideration on which it was granted not being truly stated; the patentee stated that by his im-

- (a) Turner on Pat. p. 36.
- (b) Nickels v. Haslam, 7 M. & G. 378. The same point had been so decided in De Rosne v. Fairrie, 5 Tyr. 393. See antè, p. 13.
  - (c) In Bainbridge v. Wigley,

Carpmael's Rep. 270. taken from 18 Repertory, 2nd ser. 127., the specification of another patent of Bainbridge's (26 Feb. 1810) is given at length; and, probably by mistake, that of the above patent is omitted.

provement he had given new notes, when in fact he had given but one new note.

Vaucher's.

The title of Vaucher's patent, Sept. 1838 [7800], was, "Gertain improvements in fire-engines, watering-engines, and other hydraulic machines and apparatus for raising or propelling water and other fluids, some of which improvements are also applicable to steam-engines;" and the specification showed that soft metal was to be used for packing. Nothing was said in it upon the subject of friction, or upon the subject of bearings. Afterwards it was discovered that soft metal reduced the friction; and a patent was granted to W. E. Newton, May 1843 [9724], for "certain improvements in the construction of boxes for the axle or axletrees of locomotive engines and carriages, and for the bearings or journals of machinery in general, and also improvements in oiling or lubricating the same." In Newton v. Vaucher (a), it was objected that Newton's invention was comprehended in the prior patent of the defendant, and therefore void for want of novelty; but it was held that Newton's title confined his invention to bearings, and that the application of soft metal to diminish the friction was his invention, and was not contemplated by the defendant.

Newton v. Vancher.

Newton's.

Gamble's.

Gamble's patent, April 1801 (2487), was "for his new invented machine for making paper, without seam or joinings, from one to twelve feet and upwards wide," &c. Held, that this imported that paper varying in width between those extremes should be made by the same machine. (b)

Mill's title after disclaimer. The title of Mill's patent, June 1846 [11,266], was, "Improvements in instruments used for writing and marking, and in the construction of inkstands." The

<sup>(</sup>a) 6 Exch. 859. & C. 169. And see Campion v

<sup>(</sup>b) Bloxam v. Elsee, 6 B. Benyon, 6 B. Mo. 71.

patentee filed a disclaimer (under 5 & 6 Will. 4. c. 83. sect. 1.) of the 5th, 6th, 7th, and 8th claims mentioned in his specification. These claims related to pens and to instruments used for marking with a stamp. Those which remained untouched by the disclaimer were for improvements in penholders and pencil-cases, and in the construction of inkstands. Held, that the title of the patent was satisfied by the specification as amended by the disclaimer, the words "used for writing and marking" being applicable to penholders and pencil-cases. (a)

The only safe rule is, that the title is good if the patentee fairly calls attention by it to the class of objects to which his invention applies, and shows no intention to mislead, the existence of which intention is a question for the jury. (b)

(a) R. v. Mill, 10 C. B. 379. For a case in which the title was altered by disclaimer, and not the specification, see Wal-

lington v. Dale, 7 Exch. 888. (post, p.29.) n. (f)

(b) Cook v. Pearce, 8 Q. B. 1044. (1059.)

## PROVISIONAL SPECIFICATION.

#### DESCRIPTIVE PART.

THE language of the provisional specification, which is to "describe the nature of the invention," has not yet been subject to such discussion in courts of law as may enable us to regulate its terms by the authority of judicial decisions. (a)

The arrangement of that language, and the amount of particularity required, are left, therefore, almost entirely to discretion guided by a clear perception of the object of the provisional specification, namely, "to describe the nature of the invention." (b)

A few examples will be found in the Appendix, showing the language employed in provisional specifications of various letters patent. (c)

- (a) See observations in Bateman v. Gray, cited post, p. 30.
- (b) As examples of provisional specifications particularising details, see those of Brooman's patents for "Improvements in Firearms," May, 1853 [1332.], and for "Improvements in Revolving Firearms," Oct. 1852 [583.], with drawings; also Tyer's patent, Jan. 1854 [52.] (electricity).
- (c) See also antè, p. 4. et seq. The standard by which each law officer chooses to regulate the language of the provisional specification is dependent chiefly on his discretion. But the experience of patent

agents accustomed to deal with these cases enables them to act so as to comply with the rules, observed by all the law officers.

Some of these are formally laid down in pursuance of sec. 3. of the Act. (See Appendix A.) Thus from Rule 10 (Second series) it appears that "the nature of the invention," which it is the office of the provisional specification to describe, must be held to include generally also the means by which the invention accomplishes its object; so that it is not enough to give the effect or result of the invention, without stating, at least, the mode or plan by which it is attained.

Drawings are frequently used in these instruments; Drawings, and recollecting the less detailed description of the invention which is required in the provisional specification as a preliminary document, the observations upon drawings, under the head of the Final Specification, will be applicable here. (a)

In this respect the provisional specification is more definite than the "deposit paper" formerly employed. The latter document was seldom, if ever, rejected on the ground of vagueness or want of intelligibility, but the provisional specification is subjected to more scrutiny, and the inventor is required by the law officer so to word his provisional specification as to convey a reasonably clear idea of the object of the invention, and the method by which it effects its purpose.

It would appear, therefore, that the law officers are gradually exercising a restraint upon public grounds on the freedom of language employed to define inventions, though it is well known that this was not done, even to a late period. Mr. Turner said, in 1851, "It certainly has not been the practice of the law officer whether in opposition, or of his own motion in opposed or unopposed cases, to exercise any discretion except upon private interests; but a remark of the Attorney-General in a recent debate half intimated a disposition to resume a power to look into the merits on public grounds." Turner on Pat. 32.

(a) See provisional specification of Winiwarter's patent, Feb. 1853 [306.] for "Certain Improvements in the Application of Explosive Compounds," in which a drawing is used.

Considerable freedom is permitted as to the number and extent of drawings employed in the provisional specification.

Thus the Earl of Aldborough's patent for improvements in aerial navigation, &c., 1855 [625.], has fifteen pages of printed matter in the provisional specification, with fourteen sheets of drawings, and sixteen pages for the final specification, with twenty-two sheets of drawings. (See also Appendix F.)

Some of the most experienced patent agents frame the provisional specification without any drawings, and are of opinion that they are seldom or ever of benefit in this early stage of the description, but rather the contrary, as they unnecessarily restrict the patentee to the particulars shown in the drawings.

### COMPLETE SPECIFICATION.

Provisions of the Act. THE only part of the Act which relates to the language of the complete specification is contained in sec. 9., and is as follows:—

"The applicant for letters patent for an invention, instead of leaving with the petition and declaration a provisional specification as aforesaid, may, if he think fit, file with the said petition and declaration an instrument in writing under his hand and seal (hereinafter called a complete specification), particularly describing and ascertaining the nature of the said invention, and in what manner the same is to be performed. (a)

Form.

No form for the complete specification is given in the schedule to the Act but we may use the following (b):—

No.

To all to whom these presents shall come, I, of, &c. do hereby declare the nature of my said invention of [insert title as in petition and declaration] and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement (that is to say) [describe the invention, and annex drawings, if any]

- (a) By the same section the letters patent are to contain a proviso that they should be void if the complete specification does not fulfil this condition.
- (b) Webster's New Patent Law, p. 90. See also Appendix D.

In witness whereof I, the said hereunto set my hand and seal this A.D. have day of

A. B.

The observations already made on the title (a) are Language, applicable to the title of the invention as set forth in the complete specification; and as the purpose of the rest of the language to be employed as prescribed in the above section relating to it is precisely the same as in the case of a final specification, the remarks on the language under that head (b) may be referred to as applicable to the complete specification.

There is, however, one important difference to be noted between the circumstances of the complete specification and the final specification, namely, that by sec. 13. of the Act it is provided that objections to the complete specification may be heard by the law officer, and thus restrictions may be imposed upon its language after it is left, and before the sealing of the patent; whereas the final specification may be filed without any reference to objections, and no alterations can be made in it afterwards without special leave. (See post, Disclaimer, and antè, p. 4. note (c).

(a) Antè, p. 8. et seq. (b) Post, p. 22. et seq.

## FINAL SPECIFICATION.

In directing attention to the language of the final specification, we shall consider, as preliminaries,

- 1. Its object and form.
- 2. To whom it is addressed.
- 3. By whom it is to be construed.

Next, we shall inquire how the language of the specification may best fulfil its two-fold object, namely, to describe and to ascertain or define the invention; considering, under the head of description,

- 1. Order and manner of description.
- 2. Words, phrases, and terms of art.
- 3. Drawings;

and under the head of definition.

- 1. Old parts and new.
- 2. Ambiguity and misleading.
- 3. Claims.

We shall afterwards refer to amendments, and the means provided for correcting errors in the specification.

By sec. 15. of the Act it is enacted that the "law officer shall direct the insertion in such letters patent of all such restrictions, conditions, and provisoes as he may deem usual and expedient in such grants, or necessary in pursuance of the provisions of this Act."

The object (a) of the language of the specification

(a) Mr. Hindmarch states the object for which the specification is required to be "the

furnishing of sufficient and

certain information to the public respecting what they are prohibited from doing whilst the privilege continues, and what

Object.

FORM. 23

is accordingly set forth by the following provise always contained in the letters patent, as these are prepared according to a form given in the schedule to the Act. This provise is as follows:—

"Provided likewise nevertheless, and these our Proviso. letters patent are upon this express condition, that if the said [patentee] shall not particularly describe and ascertain the nature of his said invention, and in what manner the same is to be performed, by an instrument in writing under his hand and seal, and cause the same to be filed in [stating the office] within [six] calendar months next and immediately after the date of these our letters patent, and also [&c., stating other conditions]

\* \* \* then and in any of the said cases these our letters patent, and all liberties and advantages whatsoever hereby granted, shall utterly cease, determine, and become void, anything hereinbefore contained to the contrary thereof in anywise notwithstanding."

The following form for the final specification is Form. given in the schedule to the Act: —

"To all to whom these presents shall come I,——of——send greeting.

Whereas her most excellent Majesty Queen Victoria, by her letters patent, bearing date the day of

A.D. in the

year of her reign, did for herself, her heirs and successors, give and grant unto me the said her special licence that I, the said my executors, administrators, and assigns, or such others as I, the said my executors, administrators, and assigns, should at any time agree with, and no others from time to time, and

they will be enabled to do after it is expired." Hind. on Pat., 159. as to that which the patentee has patented." (Ob. Dict. by Martin B. in Bateman v. Gray, 21 L. J. Ex. 290., and see post, p. 30.)

~ A

<sup>&</sup>quot;There is no authority that the specification is an estoppel

at all times thereafter during the term therein expressed. should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands and Isle of Man, [colonies to be mentioned, if any], (a), an invention for [insert title as in letters patent] upon the condition (amongst others) that I, the said by an instrument in writing under my hand and seal, particularly describe and ascertain the nature of the said invention, and in what manner the same was to be performed, and cause the same to be filed in within calendar months next and immediately after the date of the said letters patent.

Now know ye, that I, the said do hereby declare the nature of my said invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement; (that is to say),

(describe the invention.)

In witness whereof I, the said A. B., have hereto set my hand and seal this day of A. D.

## A. B.

(a) Patents are not now granted for the Colonies. For protection in India, see Appendix (E). The laws prevailing out of England may be consulted at the Great Seal Patent Office Library.

## LANGUAGE OF THE SPECIFICATIONS.

THE proviso relating to the object of the specification. Language. contained in letters patent granted before the Act, is in the same words as that given at p. 23., by which the language of the final specification is now to be regulated. The decisions of the Court, therefore, in this particular upon specifications under the old law are applicable to final specifications. (a) It must, however, be recollected that letters patent are not now granted as formerly for more than one invention (b), and that the formal recognition of a preliminary description of the invention by the introduction of the provisional specification restricts the language of the final specification, by requiring a harmony to be preserved between these documents. (c)

In Bateman v. Gray (d), where a discussion arose Parol evidence as to the admissibility of parol evidence to show of the invention. what the invention was which the patent alluded to.

- (a) And to complete specifications. See antè, p. 20.
- (b) See Rule I. of the third set of rules issued by the commissioners (12 Dec. 1853), Appendix A., and see Appendix B. (I.)
- (c) The language of the outline - description, or deposit paper, was seldom brought to bear upon that of the specification, nor discrepancies between them reviewed. See antè, p. 18. n. (c).

A variance between the de-

posit paper and the specification is evidence, and is not to be specially pleaded. Hancock v. Noyes, 8 Ex. 388.

It would appear consistent to hold that a variance between the provisional specification and the final specification may be relied on as evidence, under the plea that the patentee did not sufficiently describe his invention, and that this variance is not to be specially pleaded.

(d) 22 L. J. Ex. 290. See post, p. 30.

Platt B. said, "Suppose an action for infringement brought and tried before the expiration of the six months allowed for the enrolment of the specification, how would the invention then be ascertained?" To this it was replied, "no such action has ever been brought, and probably the specification would have to be enrolled before the trial."

Contents.

The final specification contains, besides its formal parts, the title of the invention, and the description of the invention.

Title.

The title is definitely settled by the filing of the provisional specification, and its language has been already considered. (a) We proceed, therefore, to consider the language of the final specification, by which it marks out the invention according to the purpose of the instrument, which is to "particularly describe and ascertain the nature of the said invention, and the manner in which the same is to be per-

Descriptive part.

formed."

The nature of this language will be indicated by considering, I. To whom the final specification is addressed, II. By whom it is to be construed: as well as the recorded decisions respecting its particular properties and requisites.

(a) Antè, p. 8. et seq.

# TO WHOM ADDRESSED.

The specification (a) is addressed not to persons entirely ignorant of the subject matter, but to persons of competent skill in the particular manufacture. (b)

By competent skill and knowledge are meant ordinary skill and knowledge such as that possessed by practical workmen (c), first-rate engineers and common labourers being excluded, (d) The specification ought to be "sufficiently plain to be understood by an operator of fair intelligence (e)," and to "enable any person of sufficient understanding on the particular subject and reasonably competent skill (f) in such matters to attain the result without doubt or difficulty (g);" and it must be such as "will enable a workman of tolerable skill (h)" to construct a machine not only answerable to the patent, but answerable to the patent to the extent most beneficial within the

- (a) When the term "specification" is used, it is understood to mean the final specification, or, in cases under the former practice, the only specification required. See anté, p. 25.
- (b) Bickford v. Skewes, 1 Web. P. R. 219.; also post, p. 39. n. (b) (and see Hind. on Patents, 172—177.)
- (c) Neilson v. Harford, 1 Web. P.R. 371.
- (d) Househill Company v. Neilson, 1 Web. P.R. 692.
  - (e) Beard v. Egerton (da-

- guerreotype), 8 C. B. 165, (216.)
- (f) Leardit v. Johnson, Bull. N.P. 76.
- "The public, to whom the instruction is directed, may be a special or comparative public, but not meaning, however, the inventive public, who would, on a hint, be able to carry it out."

  Turner on Pat. p. 41.
- (g) Gibson v. Brand, 1 Web. P. R. 629.
- (h) Manton v. Manton, Dav. P.C. 349.

knowledge of the patentee at the time (a) of the enrolment of the specification. (b)

(a) Gibbs C. J. in Bovill v. Moore, Dav. P. C. 361. (400.)

(b) Crosley v. Beverley, 9 B. & C. 63. Jones v. Heaton, I W. P. R. 404. (n.)

The difference between the intention of an inventor and the interpretation likely to be given to his language by workmen is

thus accounted for by Mr. Spence: "He wishes to forget the past as containing anything valuable; they know what there was of good, and are doubtful (often unduly) of the possibility of improvement." Spence on the Specification, 125.

## BY WHOM CONSTRUED.

THE patent and specification are to be taken as one In general. instrument (a), and with the extent of the claim are to be construed by the Court. (b) But the words of Words of art. art are to be interpreted by the jury (c) according to the state of knowledge at the time (d), and to their finding as to the facts which may explain terms. (e)

The sufficiency of the specification in matters of de- Sufficiency. scription is a question for the jury (f), and their finding is conclusive as to its distinctness. (q)

- (a) Crosley v. Beverley, 1 W. P. R. 117.
- (b) Hill v. Thompson, 1 W. P. R. 237. "What is the true meaning and construction of the specification? We think this is a question of law, where the meaning of the terms and the facts are not disputed." Pollock. C. B. in giving judgment (Jan. 30, 1856), in Bovill v. Pimm. 26 . R. 312
- (c) Neilson v. Harford, 1 W. P. R. 350., and see post, p. 47.
- (d) Crosley v. Beverley, ib. 107.
- (e) Elliot v. Turner, 2 C. B. 446. Muntz v. Foster, 2 W. R. 96. See "Words and Terms of Art," post, p. 58. Mr. Spence, in his treatise on the Specification, divides the language into, (1) matter for the jury,(2) questions for the Court.
- (f) Walton v. Potter, 1 W. P. R. 595.
  - "The question respecting the

sufficiency of the specification is a mixed question of law and fact, partly for the determination of the jury, and partly for the decision of the judge." Hin. P. 6, 476. See El. Tel. Company v. Brett & Little, 8 C. B. 838. antè, p. 14., and post, p. 43.

In a case where a disclaimer had been filed altering the title of the patent, but without altering the rest of the specification, Alderson B. left it to the jury to say, first, whether the specification was reasonably sufficient, telling them that it must be such as to define the invention so that an ordinary and skilful workman might do it, and so as to limit the claim of monopoly, and not to embarrass the invention or apparatus of others: Held, that the case was properly left to the jury. Wallington v. Dale, 7. Ex. 888. See antè, p. 16., Mills' patent.

(g) Bickford v. Skewes, 1

"It is a question for the jury whether or not the specification in a patent describes with sufficient accuracy the material of which the proposed article is to be made, that question being raised by the issue." (a)

The following decision under this head requires some consideration:—

Bateman's specification.

Bateman v.

Gray.

The specification of Bateman's patent, Jan. 1848 (12032), for "certain improvements in valves or plugs for the passage of water or other fluids," described three distinct improvements, and concluded thus: "Having now described the nature and objects of our said improvements, we would remark that we claim as an invention, first, the application for (&c.); secondly (&c.); thirdly (&c.)." Each of the three things thus described was old; but the plantiff Bateman was called (b), and stated that his invention was a combination of the Pollock C.B., in giving judgment, said, "We three. think that what was the invention was a question for the jury, and that the production of the specification did not conclude it. It was evidence to be considered by the jury, but no more, that the plaintiff had so described his invention. But it may be, even if the defendant's construction be the true one, that the invention was new as a combination, and vet this description of it in the specification erroneous. here the jury have clearly found the invention to be that of a new combination of old parts; and if this be so, the real and true objection which was open to the defendant was, that the plaintiff had not complied with the condition in his patent by truly and correctly describing it in his specification which he has filed:

W. P. R. 220., and see post, p. 40. n. (a).

(a) Bickford v. Skewes, 10 L. J. Q. B. 302. De Rosne v. Fairrie, 2 C. M. & R. 476. Elliot v. Turner, 2 C. B. 448. Wallington v. Dale, 7 Ex. 888.

(b) Bateman v. Gray, 22 L. J. Ex. 290.

but this could only be taken advantage of by a plea There was no such plea upon the record. to that effect. so that the defendant cannot now avail himself of this objection."

When it is sought to prove that the invention pa- Comparison of tented is in fact disclosed in a prior patent, and no evidence exists except the comparison of the specifications, then the construction of the two specifications is for the Court (a), but the identity of the inventions described in two specifications is a question for the jury.(b)

specifications.

"The specification may be said to be the considera- Good faith. tion for the bargain between the public and the patentee, and must be judged on the principle of good "Its language must be read in a spirit of candour, and not with a predetermination to find fault with it." (d)

The specification has thus to be construed by those who are presumed to be informed of all that has been disclosed in former patents; and as this amount of information is continually increasing, the necessity for a rigid adherence to accurate definition in the case of each subsequent invention is more and more urgent. (e)

- (a) Coltman J. in Allan v. Rawson, 1 C. B. 551.
- (b) Muntz v. Foster, 2 W. R. 96. (105.) See post, p. 58., also see n. (d), p. 43.
- (c) Per Lord Eldon. (See Spence on the Specification, p. 49., and post, "Old and new Parts," and p. 34. n. (b)
- (d) Parke B. in Macalpine v. Mangnall, 3 C. B. 516.
- (e) Under the head of " combustion of fuel," more than 600 patents will be found, and about

1000 have been granted for agricultural implements. The collection of patents into groups has been one of the first and most laborious duties undertaken by the Commissioners, and by their publication the public are furnished with comprehensive information upon points of national importance, such as "Fire-arms," Textile Fabrics," "Fuel," "Agricultural Implements," &c.

#### ORDER OF THE LANGUAGE.

THE order in which the specification describes the invention is left to discretion. A little consideration, however, will show the propriety of adopting certain schemes of arrangement which are found by experience to conduce to the brevity and clearness of specifications.

Division of objects.

We may divide the objects of the language of the specification into two (a):

- 1. To particularly describe and ascertain the nature of the said invention.
- 2. To particularly describe and ascertain in what manner the said invention is to be performed.

But although this is a just division of the objects of the specification, it is not descriptive of the order in which they are generally fulfilled. A careful examination of the language of specifications, and especially of those which are most clear and comprehensive, will show that it is natural and usual, and often most satisfactory, to arrange the language according to the following order:—

Order.

- 1. To particularly describe the nature of the invention.
- (a) Webster on Letters Patent, p. 65. Mr. Spence suggests the following order of arrangement in the specification: 1. the object or purpose of the invention; 2. the essence of the invention; 3. detail; 4. claim.

He moreover advises that after the title should come a description such as to answer the question, "What is the invention?" Spence on the Specification, p. 61.

- 2. To particularly describe in what manner it is to be performed.
- 3. To ascertain the nature of the invention, and in what manner it is to be performed.

According to this arrangement, the first part of the (1) final specification, the object of which is "to particularly describe the nature of the invention," is often similar to the provisional specification (a), the object of that being "to declare the nature of the invention."

The second part of the final specification will then (2) "particularly describe in what manner the invention is to be performed;" and the third (comprising that part (3) frequently designated as "the claims") would "ascertain," that is, limit by definite bounds from all that had been done before, both the nature of the invention and the manner of its performance.

The order of arrangement indicated may be stated briefly thus: 1. Describe the nature. 2. Describe the 3. Ascertain the nature and manner. (b)

The foregoing arrangement is most readily applicable Improvement. to that numerous class of inventions styled "improvements," where, to make the new matter intelligible, it is necessary to describe much that is old. (c)

- (a) See examples in the Appendix B.
- (b) This may be illustrated by the two following specifications: "I-do hereby declare that the nature of my said invention consists (&c.). And I do hereby describe the manner in which my said invention is to be performed," &c. Specification of Galloway's patent, Aug. 1855, [6887.] 1 W. P. R. 166.
- "Having thus particularly described and ascertained the
- nature of my said invention, I now proceed to show in what manner, and by what apparatus the same is to be performed," &c. Specification of Bickford's patent, Sep. 1831 [6159.], 1 W. P. R. 210.
- (b) Patents for "improvements" became general after the case of Morris v. Branson (A.D. -1776), cited in Boulton v. Bull, 2 H. Black. 463, (489). The titles of modern patents show that about three out of every

Mode or process entirely new. There is, however, another class of inventions in which the whole, or nearly the whole description, is that of a mode or process newly invented, and in such cases it is less necessary to recapitulate in the claims the invention intended to be defined.

New article.

The same occurs often when a substance or article, and not a method of manufacture, is the invention. (a) But the number and varied character of inventions require so many different modes of description, that it is neither desirable nor possible to follow strict rules in arranging the language by which they are to be set forth.

Numerical divisions. A minute subdivision of the description, especially if it is precisely indicated by paragraphs marked "first," "second," &c., is a system more attractive by its apparent regularity than useful in practice; for unless the various "parts" of the invention are distinctly answerable to the corresponding claims, confusion is introduced, and unnecessary opportunities are afforded for minute hostile criticism. The rules, which limit each patent to one invention, are also more likely to be manifestly infringed when the specification itself divides the invention into parts, one or other of which, if new, ought to be the subject of a separate patent, or, if old and not disclaimed, may invalidate the whole. (b)

four are granted for inventions termed "improvements."

(a) In all cases, however, it should be recollected that the effect of the formal part of the commencement of the final specification is, primá facie, to claim as part of the invention everything comprised in the description which follows. Hind

on Pat. p. 155. Bovill v. Moore, Dav. P. C. 399.

(6) The specification in Kay v. Marshall, described the preparation of flax by maceration, and also the spinning of flax so prepared. The spinning being old, it was there contended that the invention was one and entire, and consisted of the spinning of

macerated flax. But the Court of Common Pleas held that such a construction could not be sustained, for the specification itself divided the invention into two distinct parts. See Mr. Hindmarch's argument on Bateman's disclaimer, Macrory's Rep. p. 137.

### MANNER OF DESCRIPTION.

Entire discovery. "THE entire discovery of all the things for which the patent was taken out must be held to be the consideration upon which the patent was granted by the Crown." (a)

Good faith.

There must be the utmost good faith in the specification. (b) A studied or manifest ambiguity will vitiate it (c), or directions which tend to mislead the public (d), or obscure terms employed for the sake of concealment (e), or if on a fair interpretation the language is equivocal. (f)

Essence and particulars.

The *thing itself* should be accurately ascertained. The materials of which it is composed, the method by which it is made, and the use to which it is to be applied, should be accurately developed and particularly described. (g)

Data.

Information must not be requisite from other sources (h), but reasonable data will be sufficient (i); and all the substances which will answer the purpose

- (a) Tindal C. J., in giving judgment in Cook v. Pearce, 13 L. J. Q. B. (in error), 189., quoting Bayley J. in Brunton v. Hawkes, 9 B. & Ald. 541. See also post, "Ambiguity."
- (b) Per Lord Lyndhurst; Sturtz v. Dela Rue, 1 W. P.R.83.
- (c) Galloway v. Bleaden, 1 W. P. R. 524.; and see post, "Ambiguity."

- (d) Turner v. Winter, 1 W. P. R. 77.
- (e) Savory v. Price, ib. 83.
- (f) Hastings v. Brown, 1 E. & B. 454.
- (g) Godson on Patents, 2nd edition, p. 117.
- (h) R. v. Arkwright, 1 W. P. R. 66. and see post, p. 28. n. (c).
  - (i) Morgan v. Seaward, ib. 174

of the invention need not be mentioned (a), nor scientific terms explained when used as such. (b)

A mistake in the specification will not necessarily Mistakes. invalidate it (c), nor the inaccurate use of words if explained by the context. (d)

All the improvements made during the interval for How imfiling the specification should be described, and the most are to be deimproved means of carrying out his invention known scribed. to the patentee. (e)

When the specification claims as the invention im- Invention approvements in the mode of doing something by a known plied to process, the patentee is entitled to his improvement, discoveries. when applied either to the process as known at the time of the claim, or to the same process altered or improved by discoveries not known at the time of the claim, so long as the process remains identical with regard to the improvements claimed, and their application. (f)

subsequent

A deviation from the precise form shewn, so as to Deviations and make different parts work together, is within the know- additions.

- (a) Bickford v. Skewes, 1 W. P. R. 218.
- (b) Neilson v. Harford, ib. 341., and see post, "Words and Terms of Art."
  - (c) Ibid, 353.
- (d) Ib. 369. "The language of the specification is naturally that of the factory." Carpmael in preface to Report of Patent Cases, quoted in Spence on the Specification, p. 112.
- "So long as what is intended to be claimed and represented as the invention can be gathered and ascertained from the whole instrument, the Court will overrule mere technical objections,
- and support the validity of the grant of the Crown. The inventor is referred to the specifications of the following patents, in illustration of the preceding observations: -- Forsyth's (3032) (1 W. P. R. 96.); Hall's (4178) (ib. 98.); Clegg's (3968) (ib. 103.); Hill's (3825) (ib. 225.); Neilson's (5701) (ib. 273.); Crane's (7195) (ib. 375.); Webster on Letters Patent, p. 70. and note. (See also post, "Words and Terms of Art.")
- (e) Crosley v. Beverley, 1 W. P. R. 110. (note n).
- (f) Elec. Tel. Comp. v. Brett, 10 C. B. 838., and see

Amount of information.

ledge of any workman (a); and so may an addition be which would contribute only to the degree of benefit (b), or a preparatory operation. (c) But a workman must not receive such insufficient information from the specification as to make it requisite that he should learn to make the machine from seeing others make it (d), or by setting himself to solve a problem (e), or performing an experiment. (f)

Unmeaning comments or florid eulogiums are often found appended to specifications. Sometimes these are more suitable for advertisements than for plain enunciations of the manner of performing an invention, or the benefits to be derived from its use. (g) They are, however, not always fatal to the patent. In allusion

Surplusage.

M' Namara v. Hulse, 1 Car. & Mar. 478. A specification describing the invention to consist in the use of a particular substance does not necessarily include the use of materials which when brought together produce the substance indicated. Unwin v. Heath, 25 L. J. C. P. 8. (S.C. 2 W. P. R. 279.), in which the House of Lords, agreeing with four of the judges against six of the contrary opinion, affirmed the decision in the Court of Exchequer, 13 M. & W. 583., and reversed that of the Exchequer Chamber, 22 L. J. C. P. 7. See also post, p. 44. & p. 85.

- (a) Morgan v. Seaward, 1 W. P. R. 174.
- (b) Neilson v. Harford, ib. 317.
- (c) Eyre J. in Boulton and Watt v. Bull, 2 H. Bl. 463.(497.)

- (d) R. v. Arkwright, 1 W. P. R. 66.
- (e) Morgan v. Seaward, ib. 174.
- (f) Abbott C. J. in R. v. Wheeler, 2 B. & Ald. 349.

The omission in the specification of the proportions or quantities of the ingredients would have been fatal to Dr. James's patent for fever powders. *Per* Lord Mansfield, Liardit v. Johnson, Bull. N. P. 76.

(g) In the older patents even the titles contained descriptions of the virtues as well as the methods of the inventions. Thus Dr. James's second patent, Nov. 1774 (1089), was granted for "his new invented certain medicine, called Dr. James's analeptick pills, being a sovereign remedy for rheumatism, whether seated externally or,"

to a case of this sort, Eyre C. J. said (a), "If there be a specification to be found in that paper which goes to the subject of the invention as described in the patent, I think the rest may very well be rejected as superfluous."

The above remarks refer to the manner of description generally. It may be well to observe more particularly how a machine or process of operations ought to be described when it is the essence of the invention.

"The description of a machine must be minute with- Description of out perplexity, and luminous without being overwrought. Where it descends to particulars, the elements that are known to all should not be noticed, nor yet in its fulness should anything be included that is not necessary to render it intelligible." (b)

The omission of material points in the endeavour Omissions. to be brief must be avoided. (c) In M'Namara v. Hulse (d), a specification was held bad because it did not mention the angles at which the patentee's paving blocks were to be cut according to his invention.

&c., reciting a catalogue of ailments. See antè, p. 13. note (c), and post, p. 48., note (b). Also Appendix (H).

(a) In Boulton and Watt v. Bull, D. P. C. 162. (217.) And see note (c) next page.

"It is well to avoid (as in legal instruments) the chance of mispunctuation or ill emphasis by omitting all stops. " A new mode of giving signals, by electric currents," &c., might be read as "a new mode of giving signals viz. by electric currents." Turner on Pat. p. 44.

Perhaps, however, a correct

punctuation may be equally effective in preventing such errors.

- (b) Godson on Patents, p. 151. A judicious application of the above rules ought to be the aim of every inventor who attempts to specify his invention. The advantage of professional assistance from experienced and competent agents will be evident to those who appreciate the difficulty of complying with these rules.
  - (c) Ante, p. 35., note (b).
- (d) Car. and Marsh. 478. Hin. P. 171.

Directions must be given even as to minute operations where they are of advantage to the invention, such as rubbing steel with tallow (a), pouring aqua fortis into the boiler. (b)

Tautology.

On the other hand, many specifications are rendered unintelligible by a description faulty in the other direction being overlaid by confused verbiage.

"If he had simply said, I perform my operation in such a way, and had then left it to the ordinary protection which the verdict of a jury generally throws round an honest invention honestly stated, I think in all probability the specification might have been free from objection." (c)

Turner v. Winter. Mr. Godson thus refers to the case of Turner v. Winter(d):—" The specification to this patent is what a scientific man unacquainted with legal strictness would naturally have made. It contains almost every fault generally found in the descriptions of this class of manufactures." (e)

Rule as to construction.

The justice of the rule by which the specification is construed strictly according to its language will be allowed, when it is recollected that the certainty of the application of this rule is a protection to the patentee as well as to the public; so that while nothing which is intended by him is excluded by the Court, nothing which is excluded by the patentee is imported by those who have to construe his specification. (f)

Thus in the specification of Whitehouse's patent,

- (a) Liardit v. Johnson, Bull. N. P. 76.
- (b) Wood v. Zimmer, 1 Holt,N. P. C. 58.
- (c) Pollock C. B. in Stevens v. Keating, 2 W. P. R. 183.
- (d) 1 T. R. 602.
- (e) Godson on Patents, 164. note, and see observations, post, "Ambiguity," p. 47.
- (f) See Ambiguity, post, p. 45. note (a).

Feb. 1825 (5109), for "certain improvements in manufacturing tubes for gas and other purposes," no particular mention was made of the real novelty in the invention, which consisted in welding tubes without a maundril.

The process was minutely described without any Russell v. Cowallusion to a maundril. Referring to the specification of the patent, the following remarks here made by Lord Lyndhurst C. B.: "It is the same as if the specification had stated that the operation was to be effected without the assistance of a maundril. words 'without a maundril' had been inserted in the specification, would not that have shown the invention to be perfectly new?"(a) And again, "As I read the specification, the maundril is excluded both in the particular and in the general description. The particular description states that 'as the tube is drawing out of the furnace, a workman brings the pincers and takes hold of it, resting the pincers against the standard as a steadying place, and as the tube passes through the hole of the pincers, the welding of the edges of the iron is effected.' Here then the manufacture of the tube is complete, and this description precludes the idea that

The specification of Gibson's patent, Nov. 1836 Gibson's. (7228), for "a new and improved process or manufacture of silk, and silk in combination with certain other fibrous substances," after describing improved methods, went on to say, "We will describe the spinning machine by which the rove is drawn or elongated into strands to be spun into yarn or thread. annexed drawings for the most part represent the

internal support is afforded."

longed, 26 Feb. 1839 (7980), to Russell, as assignee of White-

<sup>(</sup>a) Russell v. Cowley, 1 C. M. & R. 864.; S. C. 1 Web. P. R. 466. The patent was pro-

well-known spinning frame called a throstle, on the principle of the long ratch, as employed in the spinning of flax; which machine, combined with the improvements we have applied to it, we apply to the new and useful purpose of spinning silk waste of long fibres into yarn or thread, from rove either in the gum, or discharged or dyed as before mentioned."

Gibson v. Brand.

Citing the above in Gibson v. Brand (a), Tindal C. J. says: "They profess, therefore, to describe the machine to be used for this purpose by drawings; and the expression that these drawings "for the most part represent the well-known spinning frame called a throstle," implies that some new part in the machine represented has been discovered by them." "I feel it impossible to apply all this language otherwise than to a substantive claim to an invention of a new machine, or a new combination of the parts of an old machine."

Berry's.

In Berry's specification (b) one part of the invention was thus directed to be performed:- "It is, however, considered indispensable just before the moment of using the plates in the camera, or re-producing the design, to put at least once more some acid on the plate, and to rub it lightly with pounce, as before stated." It was argued (c) that as this was to be done just before the moment (in the French specification, "au moment") of using the plates in the camera, it must be done after the plates had been coated with iodine. The specification therefore described that as indispensable, which, according to the evidence, would render the whole experiment fruitless.

Beard v. Egerton

> In giving judgment in the case, Wilde C. J. says with respect to this specification: "Although there

<sup>(</sup>a) 4 M. & G. 179. (202.) observations, (b) See antè, p. 14.

<sup>(</sup>c) Beard v. Egerton, 8 C.

<sup>&</sup>quot; Ambiguity," post, p. 46.

may at first sight be some appearance of obscurity in it, we think that it is cleared away by a comparison of the whole, and that it is sufficiently plain to be understood by an operator of fair intelligence."

The specification of Cooke and Wheatstone's Patent Cooke and (a) described nine particular improvements in giving signals by electricity.

It was objected (b) "that this patent was for a system of giving signals by several wires and certain means, whereas the defendant had used only one wire and other means, which was found by the jury to be a different system from that of the plaintiff's." But the Court, abiding by the strict rule of construction already mentioned. said:

"This objection appears to us to be founded on a wrong construction of the specification, which we think shows the patent not to be for a system of giving signals, but for certain distinct and specified improvements, comprehending those now in question, the system being described only for the purpose of explaining the improvement claimed."(c)

When a newly invented machine consists in an en- New combinatirely new combination of parts, all of which have been parts in a before used separately, the specification is correct in machine. setting forth the whole machine as the invention; but if a combination of a certain number of those parts has previously been used, the specification should distinguish such improvements as are added by the patentee, and not claim the whole combination, though the effect produced by it may be new. (d) The most perplexing

tion of known

C. 361. Lewis' patent, Jan. 1818 [4196.], was for "Improvements in Shearing Machines for shearing or cropping woollen or other

<sup>(</sup>a) See antè, p. 14.

<sup>(</sup>b) Cresswell J. in El. Tel. Company v. Brett, 10 C. B. 838.

<sup>(</sup>c) Ibid.

<sup>(</sup>d) Bovill v. Moore, Dav. P.

Equivalents used in a process. difficulties in the preparation and construction of specifications arise from the different interpretations put upon rules such as the above.

Another source of difference of opinion is the extent to which the use of chemical or mechanical equivalents ought to be held an infringement of a patent for a process in which substances are used according to directions in the specification. This point arises when the question is "Was there an infringement?" for the answer to this consists in a comparison between the acts of the defendant as learned from the evidence, and the invention of the plaintiff as contained in the specification. The difficulty is in knowing to what extent the directions of the specification are to be compared individually with the acts of the defendant. The following important decision, after fifteen years of litigation, would appear to show that the description of a process and the mention of substances to be used will be construed strictly according to the very words of the specification.

Unwin v. Heath. In giving judgment in the House of Lords in the case of Unwin v. Heath, July 31. 1855, the Lord Chancellor Cranworth said (a): "The question was,

cloths that may require such process, the same being further Improvements in a patent obtained by J. Lewis, for 'an improved Shearing Machine,' dated 27th July, 1815." In the case of Lewis v. Marling, for an infringement of the patent of which the above is the title. Lord Tenterden, C. J., ruled that the specification of the former patent, that of July, 1815 [3939.], should be read, saying, "It is material to show what are the improvements contained in the plaintiff's patent. Now I

cannot say what are improvements upon a given thing without knowing what that thing was before; for aught I know, all the things mentioned in the plaintiff's specification may have been included in the former specification." 1 W. P. R. 488. 3 Car. & P. 502.

(a) Weekly Reporter, 1854-55, p. 625. (S. C. 2 Web. P. R. 279.), and see antè, p. 37., note (f); also observations on the whole subject by Mr. Webster, as an introduction to a report of the case printed separately.

whether the use of the two substances composing carburet of manganese was the same thing as using the carburet itself. The Court of Exchequer Chamber (a), by a majority of four out of six judges, had held that it was; and with that decision seven out of the eleven judges, of whose opinions their lordships had had the benefit, concurred, while four of them dissented. He must confess that his judgment went along with the minority. The method described in the specification was the use of carburet of manganese. Now the defendant below never had used carburet of manganese; and if there was an infringement, it must have been by his using its component parts.

"He thought that the use of the component parts was no infringement. On the short ground that the claim of the invention was for the use of a specific metallic substance in certain definite proportions, and that the substance had not been used by the defendant below, he gave judgment for the plaintiff in error."

Lord Brougham concurred.

(a) 12 C. B. 322.

### AMBIGUITY AND MISLEADING.

Clearness and accuracy.

THE language of the specification must give a clear, accurate, and complete description of the invention; and when it is wanting in any of these qualifications, through an apparent intention to deceive, the Courts are more stringent in punishing such neglect than when deficiencies evidently the result of accident or mistake do not manifest a breach of good faith. (a)

We may cite first an instance in which the intention of the patentee to reveal his invention was evident from the whole tenor of his specification, and in such a case the Court is lenient in interpreting even manifest contradictions or absurd statements.

Berry's specification. Thus, in discussing the sufficiency of the specification of Berry's patent, relating to daguerrectype (b), it was held, that taking the whole specification together, a competent workman would understand that after the application of the acid there was still another operation to be performed before using the camera. (c)

"Just before,"

The expression "just before the moment" would appear to leave no time for an intermediate operation; but the erroneous direction given in this specification was no doubt inserted by some unaccountable mistake. The rest of the description of the process is clear, though long and minute. Probably, instead of the

(a) "While the patentee is called upon to be precise, he at the same time has the consolation of knowing that any learned torsion of his language will not be permitted to outweigh the solid points in his case."

Spence on Specifications, p. 146.; and see antè, p. 40., and for a list of words, see post, p. 60. note (b).

- (b) See antè, p. 14.
- (c) Beard v. Egerton, 8 C. B. 165.

words "using the plates, &c.," it was meant to insert "applying the iodine."

On the other hand, even an apparently slight mis- Intention to leading of the public, with an intention to deceive, is bad in a specification. Thus when it was stated that by the invention, an instrument produced notes not before produced on the old instrument and it appeared in evidence that only one new note was produced, Lord Ellenborough C. J. held that this was fatal to the patent. (a)

If an article be described by a particular name, Deceptive the patentee knowing that the requisite article cannot be ordinarily procured under the name by which it is described in the specification, and yet not stating where it may be procured, the public have not that full and precise information which they have a right to require. (b) And the description of a well-known material, if so detailed as to appear to designate something new, is an attempt to deceive. (c)

Thus the specification of a patent (d) described Sturtz's specithe use of "the finest and purest chemical white lead," fication. there was no substance known in the trade by that name; but the evidence showed that a substance prepared on the Continent would answer the purpose.

Lord Lyndhurst L. C.: "The purest and finest "The purest chemical white lead" must mean the finest and purest white lead usually gotten in the general market for that commodity, unless the public be put on their guard by a statement that what would be called very fine and pure white lead in the ordinary sense of the trade will not answer. If the article is not made

and finest," &c.

<sup>(</sup>a) H. on Pat. 183., citing Bainbridge v. Wigley (antè, p. 15.).

<sup>(</sup>b) Savory v. Price, antè, p. 33. 1 W. P. R.

<sup>(</sup>c) Ib. (note), and post, p. 49.

<sup>(</sup>d) Antè, p. 12.

in this country, but may be imported, it would be necessary to mention that circumstance." He ought to have said, "The purest white lead which can be obtained in the shops in London will not do; but there is a purer white lead prepared on the Continent, and imported into this country, which alone must be used." (a)

Turner's patent.

The title of Turner's patent is thus given, Feb. 1781(1281):—"A grant unto James Turner, of the city of Westminster, gent., of his new invented method of producing a yellow colour for painting in oil or water, making white lead, and of separating the mineral alkaline from common salt, all to be performed in one single process, to hold," &c.

Specification.

The specification went on as follows:—"Take any quantity of lead, and calcine it, or minium or red lead, litharge, lead ash, or any calx or preparation of lead fit for the purpose; to any given quantity of the above-mentioned materials, add half the weight of sea salt with a sufficient quantity of water to dissolve it, or rock salt or sal gem, or fossil salt, or any marine salt or salt water proper for the purpose; mix them together by trituration till the lead becomes impalpable. When the materials have been ground, let them stand for twenty-four hours, in which time the lead will be changed to a good white, and the salt decompounded," &c. (b)

Many expressions in the foregoing faulty specification were discussed; one of these was:—

" Minium."

"Take any quantity of lead, and calcine it, or minium or red lead;" and upon which Butler J. observed.

<sup>(</sup>a) Sturtz v. De la Rue, 5 Russ. 322. See Muntz v. Foster, 2 W. P. R. 96., and post, "Words and Terms of Art."

<sup>(</sup>b) See Mr. Godson's opinion of this specification, antè, p. 40.

"Minium is lead already calcined; but minium will not answer the purpose."

In the same specification it was said again: "Add sea salt, or sal gem or fossil salt, or any marine salt."

"Fossil salt is a generic term, including 'sal gem,' "Fossil salt." as well as other species of fossil salt, and I understand that sal gem is the only one which can be applied to this purpose; so that throwing in 'fossil salt' can only be calculated to raise doubts and mislead the public." (a)

Another kind of misleading is found in the specifica- Savory's tion of Savory's patent, which gives three distinct recipes specification. for preparing the ingredients of seidlitz powders (b), but gives no name to these ingredients which were well known substances. In Savory v. Price (c), this is thus noticed by Abbot C. J.: -

"By reading this specification we are led to suppose a laborious process necessary to the production of the ingredients, when in fact we might go to any chemist's shop and buy the same ready made. The public are misled by the specification; it cannot be supported."

The specification of Crompton's patent (d) contained Crompton's these words: - "The invention consists in conducting

" any suitable material," &c.
"I prefer."

- (a) Turner v. Winter, 1 W. P. R. 77.
- (b) This patent is thus referred to in the Chronological Index: - "Savory, 23rd Aug. 1815 (3954). A grant unto T. H. Savory, of New Bond Street, in the coy. of Midx., chemist, for his discovered and combined neutral salt powder, which possesses all the properties of the medicinal spring at Seidlitz in Germany, and which invention so prepared by the petr. under the name of the

Seidlitz powder, he believes will be of great benefit and advantage," &c.

- (c) 1 W. P. C. 83 (n.); 1 R. & M. N. P. C.
- (d) For "improvements in the manufacture of paper," 1839 (8027).
- " There are persons who imagine that if they introduce the words 'and for other useful purposes' into the title of the patent, that the title must be good; and that if they insert the words, 'other materials may be

paper by means of a cloth or cloths against a heated cylinder, which cloth may be made of any suitable material, but I prefer it to be made of linen warp or woollen weft."

It was proved that no other material would answer the purpose, and that the plaintiff knew this by repeated trials.

Crompton v. Ibbetson.

Tenterden C. J. (a): "Other persons, misled by the terms of this specification, may be induced to make experiments which the patentee knows must fail." The patent was therefore held void.

Hastings v. Brown.

So it was held that the specification of Johnston's patent (b), did not particularly describe the invention, it being at least ambiguous whether a cable holder made according to it was to hold a chain cable of one size, or chain cables of different sizes.

Wightman J.: "Any single chain cable would have fulfilled all that is expressed in the description; and it is enough to say that it is equivocal, and may bear such a construction."

Arkwright's patent.

The notice of Arkwright's patent, Dec. 1775 (1111), is thus given in the Chronological Index: — "A grant unto Richard Arkwright, of Cromford, in the county of Derby, of his new-invented certain instruments or machines, which he conceives will be of public utility in preparing silk, cotton, flax, and wool for spinning; that the said instruments or machines are constructed on easy and simple principles, very different from any that have ever yet been contrived, to hold," &c.

used,' or 'any other substance from which the thing can be obtained,' into the description, that it is impossible to find fault with the specification. There is not a greater error." Godson on Patents, p. 125.

- (a) Crompton v. Ibbetson,
- K. B. D. & Lloyd, 33., and see also the words "fit for the purpose" used in Turner's specification, antè, p. 48.
- (b) Hastings v. Brown, 22 L. J. N.S. Q.B. 161. See post, p. 55.

Baillie J. thus observes upon Arkwright's specifica- Arkwright's tion (a): - "Then, says the counsel, there was a difference as to those things, because the hammer was proper for the hemp, and not proper for the wool. If there be that difference, it was necessary for the defendant to state it in his specification; he has left to those who are to learn his art and secret to use the same machine for every part of it; he has not distinguished between the cotton and the flax."

In the specification of Derosne's patent, Sept. 1830 "It is conve-(6002), were these words: "Only it is convenient before the carbonization to separate from the bituminous schistus the sulphurets of iron."

Bolland B. said: "He (the patentee) was bound to have informed the public how the iron was removed from the schistus, or to show that its presence was immaterial." (b)

- (a) King v. Arkwright, D. P. C. 118. Mr. Arkwright did not state as he should have done that the hammer in front of his machine was to be used only in preparing flax. Other parts which were put on or off as occasion required appeared as though they were fixed, and to be used
- in every stage of manufacturing each of the articles. omissions in the description were considered of sufficient importance to invalidate the patent. Godson on Patents, p. 123.
- (b) Derosne v. Fairrie, 2 C. M. & R. 476.

### WORDS AND TERMS OF ART.

In many cases the meaning of the language of the specification has been questioned, chiefly in particular words or phrases, and the manner of interpreting these strikingly exhibits the principles by which the Courts are guided in cases where the language is ambiguous. It will be observed that on the one hand an expression, however short, may be such as to govern the meaning of the entire specification, and on the other hand an expression, phrase, or word, which might, if judged of alone, appear to be decisive, is not to be interpreted but in connection with the rest of the language employed. The following cases turn more entirely upon the interpretation of such isolated words or the meaning of "terms of art" used in the specifications. (a)

"Immaterial to the effect."

Neilson's patent, Sept. 1828(5701), was for "aninvention for the improved application of air to produce heat in fires, forges, and furnaces where bellows or other blowing apparatus are required." The specification directed a blast of air to be passed from bellows to a vessel, and after describing the materials and dimensions of the vessel, said: "The form or shape of the vessel or receptacle is immaterial to the effect." parts of the specification the same language was used with reference to the ultimate beneficial effect upon the Held, that such was the reasonable confurnace. struction of the above clause also, and not that the

<sup>(</sup>a) See a list of "words" and "terms of art," post, p. 60.

<sup>(</sup>n.) The words first considered

are those in which the question of a technical use is not discussed.

form of the vessel was immaterial to the effect of heating the air within it. (a)

Parke B. said: "The word 'effect' occurs four times "Effect." in this specification, and it is a just rule of construction to judge of the meaning of a particular phrase by taking the whole instrument together (b)," and he then discusses the use of the word in each of the four places alluded to; finally concluding that the meaning intended was "beneficial effect," or "ultimate effect."

So in Electric Telegraph Company v. Brett and Little "System." (antè, p. 39.), the word "system" was strictly construed in the verdict of the jury when taken in reference to the object of the invention.

In Cuttler's patent, Jan. 1815 (3873), for "his in- Cuttler's "&c." vented certain improvements applicable to fire places, stoves, &c." (c), the specification showed the invention to consist in a new mode of feeding the fire in a grate by a supply of fuel from below instead of from above, "From below." in the usual way. Lord Ellenborough held that there was nothing predicated in the specification of raising the fuel from below the grate; it was merely for elevating a supply of fuel from below, and this was proved to have been done before, so the patent was repealed. (d)

In the specification of Clegg's patent, Dec. 1815 "Other sub-(3968), it was stated, "my improved gas apparatus is for the purposes of extracting inflammable gas by heat from pit-coal or tar or any other substance from which gas or gases capable of being employed for illumination can be extracted by heat."

> of construction entirely." Per Ld. Abinger, S. C.

<sup>(</sup>c) The "&c." is in the original title.

<sup>(</sup>d) Rex v. Cuttler, 1 Starkie, 354.

<sup>(</sup>a) Neilson v. Harford, 8 M. & W. 806.

<sup>(</sup>b) S. C. p. 825. "Whether the word 'effect' means the effect on the hot air, or the effect on the blast, is a matter

" Ejusdem generis."

" Metallic circuits." Lord Tenterden C.J. (a): "I think it quite clear in this specification, when he speaks of coal and other matters, he means matters ejusdem generis that were in use, which practical men would employ."

Cooke and Wheatstone's patent was described in the title, and also the invention patented was described in the whole of the specification, whenever mentioned, as an invention of "improvements in giving signals and sounding alarums in distant places by means of electric currents transmitted through metallic circuits." Held, that the specification, in speaking of metallic circuits, may properly be considered as comprehending all circuits which are metallic, as far as it is material to the improvements claimed that they should be so. (b)

In the specification of Johnstone's patent, Dec. 1844 (10,446), for "certain improved arrangements for raising ships' anchors and other purposes," it was said: "The scallop shell, in which the iron chain cable appears in the drawing, is upon a new plan, to hold without slipping a chain cable of any size, as shown by the opening form of the scallops at the top and bottom of fig. 2." "And I also claim as my invention the new form of a scalloped shell (as shown in fig. 2.), in conjunction with the arrangements herein-before described." Lord Campbell C. J.: "The title tells us nothing; but the words of the specifi-

cation are, 'a chain cable of any size.' 'A' applies to one

"Any size."

" A."

(a) Crosley v. Beverley, 1 W. P. R. 106. See the use of "any suitable material," antè, p. 48.

(b) Electric Telegraph Comp. v. Brett & Little, 10 C. B. 838., antè, p. 49. A circuit in which the earth without a wire formed part being proved to be metallic

in all that part which operated in giving signals, and in all the parts to which the improvements applied, it was held to be an infringement of the above patent.

The word "system" is also construed in the same case, antè, p. 53.

only; at all events the phrase is capable of that meaning. and the specification, if it be equivocal, is bad."(a)

Campion's patent, April 1813 (3682), was for an "Without "improved method of making and manufacturing double any." canvass and sailcloth with hemp and flax, or either of them, without any starch whatever."

Dallas C. J. (b): "From the moment I read the patent, I thought the object of the patentee was to make such canvass without any starch, and that the exclusion of that article was a new discovery." is not confined to a new and improved method of manufacturing the canvass and sailcloth, either in the weaving or twisting the threads, but of manufacturing them without any starch whatever, which it appears had been done before, and was therefore not a new or original discovery."

In the specification of M'Namara's patent, for "certain "Other suitimprovements in paying, pitching, or covering streets, roads, and other ways, which improvements are applicable to other purposes," March 1837 (7324), it was stated, "my invention consists in an improved mode of cutting or forming stone or other suitable material for paving," &c. Lord Abinger C. B.: "I think that the words 'any other suitable material' include a wood pavement, though probably the plaintiff never contemplated it" (c)

able material.

In Kneller's patent the specification stated his in- "And this," vention to consist "in forcing air through the liquid or solution, subject to evaporation, and this I do by means of pipes whose extremities," &c. (describing the method). The words in italics, and subsequent description of

<sup>(</sup>a) Hastings v. Brown, 1 E. Elsee, 6 B. & C. 169. ib. & B. 451. See antè, p. 49. (c) M'Namara v. Hulse, 1

<sup>(</sup>b) Campion v. Benyon, 6 Car. & M. 471., and see antè, p. B. Mo. 71., and see Bloxam v.

the particular method, were held to form one entire sentence with what preceded, and to limit the invention to the method thus described. (a)

" Method,"
" principle,"
" form."

"Abstract expressions which by the patent cases have acquired a quasi legal sense, method, principle, form, &c., should be used circumspectly, and the same may be said of general words, which, if indefinite, are construed and limited by the antecedents." (b)

Terms of art.

Scientific words and terms of art are often used in specifications, and the jury is directed in such cases to determine whether the words in question are employed in their artificial signification, and if so, to find from the evidence what is their definite meaning. (c)

Language of workmen.

"In addition to the fact that the specification has to describe a manufacture, it is essential to notice that it is addressed to competent workmen, that is, men who possess a fair average knowledge of the particular manufacture specified, and are able to carry the invention into effect by acting upon the instructions contained in the specification, provided they are practically intelligible.

"But for such men to understand the instructions given, they must be conveyed in the language which these men have been accustomed to associate with the matters treated. Persons trained to a particular business or trade are nearly sure to have imbibed a certain conventional system of language, which is not unfrequently very different even from the current phraseology of the world, and still more widely removed from the style of expression adopted by writers on exact

- (a) Hullet v. Hague, 2 B. & Ad. 370. See "Title," antè, p. 48., for the construction of the words, "from 1 to 12 miles wide" in the specification of Gamble's patent.
- (b) Young v. Quincey, 29 Newton's L. J. 446., and see Turner on Pat. p. 44.
- (c) See the list of words and terms of art, post, p. 60. note.

science. When, therefore, it is remembered that the specification has to convey practical ideas to the minds of persons thus prepossessed and biassed, it is clear that all these peculiarities of expression will have to be taken into consideration, and duly provided for. is right here to observe that the specification is exposed to no small amount of danger, owing to the varying peculiarities as regard terms and expressions even in the same trade in different districts." (a)

"Where the specification uses scientific terms which Use of scienare not understood except by persons acquainted with the nature of the business, the specification is not bad because an ordinary man does not understand it, provided a scientific man does; but where the specification does not make use of technical terms, where it uses common language, and where it states that by which a common man may be misled, though a scientific man would not, when it does not profess to use scientific terms, and an ordinary man reading the specification is misled by it, it would not be good." (b)

- (a) Spence on the Specification, p. 113. "It may be suggested that a man employing, under the specification, a substance new to his trade, might be reasonably required to acquaint himself with its peculiarities, as known in other trades. \* \* \* So the art of photography is not a special occupation: it is open to all the public; but some tact in manufacture, some idea of chemical properties, were fairly to be presumed in those persons who took up the pursuit." Turner on Pat. p. 42.
  - (b) Per Ld. Abinger C. B. in

Neilson v. Harford, 1 W. P. C. 331. (341.) See Elect. Tel. Comp. v. Brett and Little, 10 C. B. 838.

" Although the precise sense of the word "manufacture" has been departed from, the term has from time to time received a construction from the Courts which is amply sufficient to guide persons conversant with the cases, and acquainted with the manufactures of the country, to an accurate determination of the applicability of the term in any given case." Spence on Scientific Evidence, p. 4.

"Soft or organzine."

In the specification of Elliot's patent, Dec. 1837 (7508), the following words were used: — "A warp of soft or organzine silk, such as is used in," &c.; and again, "woven with soft or organzine silk for the warp." Held, that a jury ought to be directed that the words were capable of being construed as if "or" meant "alias," if only one kind of soft silk, and that organzine was used by satin weaving; but otherwise, the proper and ordinary sense of the words was to be adopted, and the word "or" to be read as disjunctive. (a)

" Preparing malt."

For the use of the words "preparing malt," see R. v. Wheeler. (b)

"Tapered."

Metcalfe's patent, Sept. 1816 (4065), was granted for a "Tapered head or hair brush." The specification directed the bristles to be taken of unequal lengths, and mixed together.

Lord Ellenborough said: "If the word (tapered) be used in its general sense, the description is defective; there is no converging to a point. If the term has had a different meaning annexed to it by the usage of trade, it may be received in its perverted sense." He afterwards advised the jury to find that it was not a tapering, but only an unequal brush. (c)

"Baked," "discolour," " extract." In the specification of De Rosne's patent (d), the word "discolour" was used as the French "décolorer," to "deprive of colour; "the word "extract" was used as chemists would do, and the word "baked" was

- (a) Elliot v. Turner, 2 C. B. 446. "The word 'or' has led, perhaps, to as much mischief as any in the dictionary." Turner on Patents, p. 44.
- (b) 2 B. & Ald. 345., and ante, "Title."
- (c) R. v. Metcalfe, 2 Stark. R. 249.
- (d) De Rosne v. Fairrie, 5 Tyrr. 402. The title of this patent is, "Certain improvements in extracting sugar and syrups from cane juice and other substances containing sugar, and in refining sugar and syrup." Sept. 1810, (6002.)

used instead of "dried" or "crystallised," but these were not considered sufficient defects to avoid the patent.

In the case of Bloxam v. Elsee (a) the following objections were made by counsel to the specification: -"I have further to object that the first specification is bad, because there are several words in it not English, such as vice de pression, vice de repulsion, and vice de French words. reaction, for different screws, and the French word chapitre also occurred. (b) \* \* \* Even the scale appended to the drawings was a scale of pieds and pouces, terms unknown to English mechanics." Alluding to the last part of this, Abbott C. J. said, "But it was proved that the names to the scale were quite immaterial. For relative proportion, which was all that was wanted, the scale would have been as good if there had been no names at all."

The objection as to the use of French words was left unnoticed, and does not appear to have been referred to at the argument on the rule nisi. (c)

The title of Muntz's patent, Oct. 1832 (6325), was, Muntz's "An improved manufacture of metal plates for sheath- patent. ing the bottoms of ships or other such vessels." specification went on to say, "I take that quality of copper known in the trade by the appellation of 'best "best selected.' selected copper,' and that quality of zinc known in England as 'foreign zinc.' Upon these words Tindal C. J. remarked (d), "What he is endeavouring to describe for the information of the public, is not the very

- (a) 1 C. & P. 567.
- (b) The word vice was used in a patent about screw propellers, to signify the screw. Mistakes in the use of French words, arise partly from care-

lessness, and partly from ignorance of the right English for French technical terms.

- (c) S. C. 6 B. & C. 169.
- (d) Muntz v. Foster, 2 W. P. R. 96. (1041).

thing itself known as 'the best selected copper,' is not the very thing itself known as foreign zinc, but that the copper on the one hand, and zinc on the other. shall be of the qualities which at that time were known and represented by that description of each respective It was contended in this case that the inarticle." vention had been disclosed in a prior patent. Collins's. April 1800 (2390), (which directed the use of copper and zine in proportions including those used in Muntz's process,) for that metals of the quality directed to be used by Muntz existed in Collins's time; but it was ruled that there were no particular directions as to quality in Collins's specification, and therefore the terms indicating the kind of metals were to be interpreted in their usual commercial sense.

Perverted words. "It is not wise to manifest any fastidious disregard of even perversions of language which have existed down to the date of the patent." (a)

If the specification is intelligible to workmen, although not logically correct, as long as no doubt exists as to the meaning of the patentee, it must be held to be good.(b)

- (a) Spence on the Specification, 137.
- (b) Tetley v. Easton, Macrory's Pat. Rep. 33. (65).

The following words are commented upon in the foregoing pages (from pp. 45—59.) in the order in which they are here given. "Just before the moment," "purest and finest chemical white lead," "minium," "fossil salt," "any suitable material," "I prefer," "it is conve-

nient," "immaterial to the effect," "effect," "system," "&c.,"
"from below," "other substance," "metallic circuits,"
"any size," "a," "without any,"
"other suitable material," "and this I do," "or," "method,"
"principle," "form," "from 1 to 12," (note) "soft or organzine,"
"preparing," "tapered," "baked,"
"discolour," "extract," French words, "best selected," "foreign."

## DRAWINGS.

WHEN drawings are used to exemplify the language Relation of of description, their connection with the specification is drawings to the specificamore definite than in former times, for then they were tion. scarcely recognised as part of that instrument (a). The following dictum of Lord Eldon would certainly Lord Eldon's be inapplicable now: - "A man may, if he chooses, dictum. annex to his specification a picture or a model descriptive of it, but his specification must be in itself sufficient." (b)

On the contrary, we are rather to be guided by the Abbott C. J.'s following principle, as laid down by another learned dictum. judge: - "If a drawing or figure enables workmen of ordinary skill to construct the improvement, it is as good as any written description." (c)

"An error may be obvious and patent on the in- Error, how spection of the drawing (d), or the simple perusal of detected. the written description (e), where the bare statement, taken literally, involved a contradiction." (f)

Shape may be important, as in M'Namara v. Shape,

- (a) See note (a), antè, p.19. (b) Exp. Fox, 1 V. & B. 67. S. C. 1 W. P. R. 431.
- (c) Abbott C. J. in Brunton v. Hawkes, 1 Carpmael Rep. 410. A witness may refresh his memory by reference to drawings. R. v. Hadden (1826) 1 C. & P. 184. 1 Carp. 447. Coryton on Patents, p. 209. Mr. Watts's specification was without drawings. See also
- Bloxam v. Elsee, 1 C. & P. 558., and Amos's Lecture in Smith's Law of Patents, and see post, p. 63. n. (b).
- (d) Newall v. Webster, 26 Newton L. J. C. S. 52. 5.
- (e) Beard v. Egerton, 8 C. B. 164.
- (f) Turner on Pat. p. 42., and see Tetley v. Easton, Macrory's Rep. 33, (74.)

Hulse (a), or it may be immaterial, as in Neilson v. Harford. (b)

Drawings only auxiliary.

But drawings are not to be substituted for verbal descriptions in such a manner as to render the drawings themselves a description of the invention; they are in the nature of explanations. Thus it was laid down by Alderson B. in Morgan v. Seaward (c), that "you cannot treat the actual picture which is given in the drawing as any guide to the particular angle or to the particular position of the eccentric, and for this simple reason: if it were the criterion, then the substance of the invention would be the particular angle contained in the particular drawing."

They must define.

And it is not sufficient that one of the annexed drawings should contain a representation of the invention, even though it is confined to such an exhibition of the new parts of the construction, and so given that an artist could make use of it to work upon.

May be given as examples.

But this is carefully to be distinguished from the case where drawings are furnished merely to show, for example, modes of using the invention, where the use of the invention under all modes is claimed as new. (d)

As in Forsyth's patent.

Thus, in Forsyth's patent, April 1807 (3032) the specification claims the use of explosive compounds for exploding fire-arms, and proceeds to explain modes in which this may be done, as follows:—

"For the better illustration of my invention, and as auxiliary to the use thereof in relation to the mechanical parts thereof, I have hereunto annexed drawings or sketches, exhibiting several constructions which may be made and adopted, in conformity to the fore-

- (a) Car. & Mar. 471.
- (b) 8 M. & W. 806., antè, p. 51.
- (c) 1 Web. P. C. 170. The protection of designs relating to form alone for utility or orna-

ment is regulated by acts of parliament, distinct from those concerning patents for inventions.

(d) Macfarlane v. Price, 1 Starkie, 200.

going plans and principles, out of an endless variety which the subject admits of." (a)

In the same way, a general exhibition of the inven- They must be tion in drawings must be so explained by the language of description as to show that parts in some respects similar in the drawing are to be executed according to the specific directions of the words, rather than the mere outward appearance of the picture supplied, however artistically correct. Thus, in referring to Galloway's patent, July 1829 (5805), for feathering paddles, Alderson B. remarked (b), "If stems and rods are spoken of Morgan v. generally, the natural inference was, that they are to be of equal lengths;" and if they were to be otherwise, the patentee should have said in his specification, "I make my rods of different lengths, in order that the rest of my floats may enter at the same angle, and the way to do that is so and so;" or he might have said, "it may be determined so and so."

Another instance of the error committed by trusting Drawings may to drawings as a particular description of the parts represented is afforded in the specification of Arkwright's patent. Though the invention employed the well known spiral cylinder in his machine, the drawing was so managed that it appeared as if a true cylinder Arkwright's. (with parallel sides) was to be used. (c)

Unless these rules are attended to, many drawings, especially when the effect of foreshortening or perspective is attempted, might be rigidly correct as delineations of the appearance of an instrument or machine. without informing a stranger to the invention of the proper proportions of similar parts, as well as of their relative dimensions with reference to the rest of the

<sup>(</sup>a) Forsyth v. Manton, W. P. Law, 129., and Forsyth v. Riviere, 1 W. P. R. 97.

<sup>(</sup>b) Morgan v. Seaward, 1 W. P. R. 170. (182.)

<sup>(</sup>c) Dav. P. C. 116. Godson on Patents, 123.

Scale.

machine. In all such cases a scale attached to the drawing, and described in the specification will be found useful. (a)

Size and form of drawings.

The rapid increase of the number of specifications with drawings attached, and a regard to the subsequent methodical publication of the drawings in lithograph to accompany the printed matter, have rendered necessary the establishment of various rules for the shape and size of the drawings, filed at the Commissioner's office; but these are mere regulations of a formal character, and do not in any manner affect the nature of the drawings themselves (b), and as the patentee is left wholly to his own discretion in selecting words for his specification, so he is allowed to use whatever description of drawings he may choose. To those who desire that their specification should derive the full benefit from accompanying drawings, a few observations on the subject will be perhaps acceptable; and first, it may be well to premise that a minute acquaintance with the patentee's invention is almost necessary for any one who prepares the drawings to explain it. "A rough plan drawn by a person who understands the subject with pen and ink, is better than the most beautiful drawing of a man who does not understand it." (c)

Sheets and figures.

If drawings are used, they should be referred to in the commencement of the specification. When they are disposed in several sheets, it is often advisable to number the "figures" consecutively throughout,

(a) See Bloxam v. Elsee. antê, p. 58., also appendix, post, p. 104. (n.)

The use of a scale is twofold: lst, to shew the relative proportions of objects in different drawings; and 2nd, to shew the actual size of the objects according to a known standard, as an inch, foot, &c.

- (b) See these Rules in Appendix (A.).
- (c) Gibbs C. J. in Bovill v. Moore, Dav. P. C. 361. (369.) Hind. on Pat. 153.

and thus to avoid in references the use of double numbers, such as "fig. 2. sheet 1." "fig. 4. sheet 3.," by enabling the reader to find the drawing from one reference, thus, "fig. 2." or "fig. 12.," &c. (a)

The capital letters, A, B, C, &c., are usually em- Letters. ployed to mark the larger parts of the drawings and the small letters, a, b, c, &c., are applied to more minute parts.

Parts which are similar in construction, and differ only in position, are frequently denoted by the same letter with an affix, as A1, A2, A3, representing, for example, three spokes of a wheel, or the pillars of a frame.

When different figures represent the same parts, though under various aspects, as in plan, elevation, or perspective, the same letters should be applied in all the figures to the same parts; and if it is intended to follow this rule, it should be premised in the description.

With regard to the order of the letters, it is not Order of the easy to lay down comprehensive rules without encumbering those who would observe them by confusing restrictions. In some cases, where the actions of each part of the portion of the machine or process under description results immediately from another, and where no particular or lengthy description is required of one or other part in the nature of a digression, the nature and the working of the invention may be described simultaneously in connection with the drawing.

Thus we may describe a portion of a steam-engine, and the action of its parts, together, as follows: "In fig. 4., A1, Example. A<sup>2</sup>, A<sup>3</sup>, A<sup>4</sup>, are the pillars supporting B, the frame. On

(a) References to figures and sheets of drawings, when given inaccurately, may be corrected by memoranda of alteration. See example of this, Appendix G. VII., and post, p. 94. n. (d).

B are fixed  $C^1$ ,  $C^2$ , the bed plates carrying  $D^1$ ,  $D^2$ , the bearings on which E, the cylinder, oscillates. F is the piston rod, connected with G, the crank, which has a projection g, that unlocks at each revolution the catch h, and thus sets free the rod i and lever h, at the same time moving the eccentric H, so as to work the valve motion  $I^2$ 

Another mode.

In other cases it is more conducive to a clear understanding of the invention to describe the parts separately first, and to begin another description afterwards, in which their mutual relation is set forth. a brewing apparatus may be described: "In fig. 5., Bi is one of the two vats, and its accompanying parts; the other is similar. The vat holds from 100 to 150 gallons, and the height and diameter are nearly equal. The upper part is hooped by rings,  $k^1$ ,  $k^2$ ,  $k^3$ , made of fine-tempered iron, about four inches distant from each other; l is a ball cock, regulating the supply of liquor from the pipe m, which is turned in a siphon form, and dips into the heating trough n, so as to be covered with four or five inches of water," &c. And after thus describing all the parts, we may begin again thus: "The operation of the machine is, as follows: - The liquor flows from the pipe m through the trough n, by the ball cock l into the vat B1," &c. (a)

The first portion of such an explanation of the drawings is something like a descriptive catalogue of the parts represented, and of the use of each in relation to those immediately adjoining it, while the second portion omits such minute description on the supposition that it is understood, and proceeds to show

ceedings of the British Association (1855). (Mechanics' Magazine, vol. 62. No. 1690. p. 607.) See Appendix F.

<sup>(</sup>a) To show one of various systems proposed for a methodical description of machinery, we may refer to a paper from the pro-

the relation of all the parts in the operation of the machine.

When there are many figures, it affords a relief to When the the mind to state at once in the commencement what figures are numerous. each figure represents, thus (a): —

"Fig. 1. represents in elevation my improved loom. Example. Fig. 2. is a vertical section of the same by a plane perpendicular to the axis of the breastbeam: Fig. 3. represents the shed when open; and Fig. 4. the same when closed. Figs. 5., 6., 7., and 8. represent the machinery at each corner of the woof; and Fig. 9. the apparatus for inserting the wire (on a larger scale.)"

The description of a machine or process, which might Description by be the best possible when confined to verbal language, must often be modified when drawings are used in addition; and it is therefore well not to endeavour to insert the references to drawings in a verbal description, prepared without them, but to remould the whole language, so that the mind may be most naturally carried along with a clear perception of the nature of each part on the one hand, and with as it were, a thread of sequence between the parts connecting each to its neighbour, on either side.

When the original drawings are coloured, the refer- Colours. ences to them in the lithograph copies accompanying the printed specification state that they are so.

The patentee, however, should recollect that in most cases the black and white uncoloured line drawings as they are lithographed will be those referred to by a jury, and the representations of his invention contained in them should be prepared so as to be clear and satisfactory without colouring. Shading with lines is Shading. occasionally employed with benefit, or the important or salient parts may be marked in broader lines than

<sup>(</sup>a) As to the number of drawings allowed, see ante, p. 19. n. (a).

Dotted lines.

those more subordinate, but no reliance should be placed on such adventitious helps without distinct explanation of them in the verbal description. Dotted lines, however, are usually referred to when indicating parts represented as behind, or covered by those nearer, as well as the paths of points when in motion. Great caution is required when it is endeavoured to set forth particular parts of the machine as the new parts, by distinguishing them in the drawings.

Use of drawings.

In conclusion, it is to be recollected that the object of the specification is not to describe the drawings, but with the drawings to describe the invention. The inventor must not be so impatient to explain the operation of the whole machine as to attempt a description too early in the specification, nor on the other hand is he to dilate without reason upon subordinate parts, the use of which is not discernible to a stranger, though to the inventor it may appear important. The specification is not intended or expected to give a definite idea of the invention until the whole of it has been perused with due attention.

## OLD AND NEW PARTS.

THE natural division under which the objects of the specification are arranged has led us to consider prominently, in the first place, how the language of that instrument is to describe the invention.

The other important object of the specification is that by which it "particularly ascertains" the invention Specification from all that has gone before or may follow afterwards. without "claims" For this purpose, the language in the body of the specification may be so employed as to limit the description of the invention to that which is actually new (a), and so as to require no formal words to disclaim the old parts or to claim the new.

But in most cases, and especially of late years, it is found needful first to point out those parts of the description which apply to substances, machines, processes. or methods which are set forth, not as the invention, but as requisite for explaining it intelligibly, and then to claim, in a formal way, the invention itself, apart from the rest of what the specification de-This is frequently necessary in specifications which refer to other inventions, either as contained in former patents, or as the foundation of improvements constituting the invention to be claimed. We shall therefore consider the language to be used for "particularly ascertaining the nature of the invention, and in what manner the same is to be performed," under two heads, first, as to the mode in which it may point out old and

<sup>(</sup>a) See "Claims," post, p. 77. n. (a).

new parts, and second, as to that for defining the invention by "claims."

The principle of "old and new parts." The principles which ought to regulate the language under the former head may be laid down broadly first, and instances given afterwards in illustration.

When the invention is a combination of new and old parts, the specification must point out clearly what is new, and what is old. (a)

"Those parts that are old and immaterial, or are not of the essence of the invention, should either not be mentioned, or should be named only to be designated as old. It seems therefore to be the safest way in the specification to describe the whole subject, and then to point out all the parts which are old and well known." (b)

If it is stated that the invention is about to be described, the whole description will be taken to be the invention; and if old parts are mentioned therein, without distinguishing them from what is new, the whole statement will be infected with error and held bad. The court thus referred to Macfarlane's specification. (c) "The specification says that the improved instrument is made in manner following, that is not true, since the description comprises that which is old as well as that which is new.".

Macfarlane v. Price.

Distinction not to be supplied by evidence. The distinction between the old and new parts described in the specification, cannot be supplied by evidence as to what is old or new (d). But the court

- (a) Holmes v. L. & N. W. R. Comp., 22 L. J.; 57. C B. Smith v. L. & N. W. R. Comp., 2 E. & B. 69. Tetley v. Easton, 22 L. T. 134.; S. C. 19 Jur. 350. See post, p. 74.
- (b) Godson on Patents, p. 130.
- (c) Lord Ellenborough C. J. in Macfarlane v. Price, 1 Stark. R. 199.
  - (d) Macfarlane v. Price, 1

may direct the jury that a certain interpretation is to be given to particular words, according to facts of the case, and the jury will find as to such facts according to the evidence. (a)

"Whether or not the specification is defective in attempting to cover too much is a question of law, and as such to be considered in all ways that it is convenient for the purposes of justice that it should be considered." (b)

The specification of an invention in the nature of an Improvements. "improvement" generally gives notice to the reader by the use of this word in the title (c), that there must be old parts of the machine, a process described before the description of the new parts constituting the invention can be made intelligible. The degree of particularity, with which the original parts and the new parts must be defined is to be gathered only from examples, but an honest intention to set forth the invention, and a clear apprehension of its exact nature if they exist will generally be apparent in the specification.

It may not be necessary, indeed, in the specification of a patent for an "improvement" to state precisely all the former known parts of the machine, and then to particularise each improvement; but on many occasions it may be sufficient to refer to the old parts generally. As, in the instance of a common watch, it may be sufficient for the patentee to say, "take a common watch, and add or alter such and such parts," describing them. (d)

Stark, R. 199. King v. Wheeler, 2 B. & Ald. 345. Neilson v. Harford, 8 M. & W. 806. But see Bateman v. Gray, antè, p. 30.

- (a) Elliot v. Turner, 2 C. B. 446. See also antè, p. 29. n. (c).
  - (b) Lord Eldon. L. C. in
- Hill v. Thompson, 1 W. P. C. 235.
- (c) Bovill v. Moore, antè, p.
- (d) Lord Ellenborough C. J., in Harmer v. Playne, D. P. C. 311. (318.). See post, p. 75.

Hill v. Thomp-

In the specification of Hill's patent for his "invention of certain improvements in the smelting and working of iron," July, 1814 (3825), were these words: "And that my said improvements do further consist in the use and application of lime to iron, subsequently to the operations of the blast furnace," &c. It was held that the application of lime, in all modes, was thus claimed as an entire discovery, and Dallas J., in delivering judgment, said (a), "The recital should have stated (supposing a previous use to be proved in the case) that 'whereas lime has been in part, but improperly, made use of, &c.,' and then a different mode of application and use should have been suggested as the improvement claimed."

Nickel's patent.

The specification of Nickel's patent for "improvements in machinery for covering fibres applicable in the manufacture of braid and other fabrics," April, 1838 (7621), described the ordinary braiding machine, and then the new process, thus, "the table a, moves on a hollow spindle, which is fixed in," &c.

The jury found (b) that the use of a hollow spindle fixed, was new.

One of the questions submitted to the court, was whether the specification claimed the hollow spindle, when revolving as well as fixed, or whether it sufficiently distinguished between the old parts of the machine, and what was claimed as new.

Wilde C. J., in giving judgment, said, "Upon a careful examination of the specification, we think that it does sufficiently distinguish between what is claimed as new, and what is disclaimed as old." This was, without doubt, an instance of the desire of the courts to construe the specification, so as to support the patent.

<sup>(</sup>a) Hill v. Thompson, 8 Taunt. (b) Nickel v. Ross, 8. C. B. 375. (398.)

The patent, however, was afterwards repealed on the ground that the old and new parts were not distinguished. (a)

The courts are becoming more and more strict in requiring such a definition in the specification as will distinguish the invention from all the old parts.

The specification of Harrison's patent for "an im- Holmes v. proved turning table for railway purposes," January London and N. W. R. Com-1841 (8818), was held insufficient, because it did not pany. distinctly state what was new and what was old. (b)

The claim was for the "improved turning table, hereinbefore described, such my invention being to the best of my knowledge and belief entirely new." It was admitted that a post, pivot, arms, and everything in the turning table described, except the suspending rods, was old, and that some parts of the invention were described in a former patent (Handcock's, Dec. 1840, (8745)).

Jervis C. J. said, "The plaintiff only added the suspending rods to a well-known article. In order to make the specification good in that respect either for the improvement of an old instrument or the combination of a new one, he should have said, 'My principle is to support it on a part in the centre, by braces and arms, and for that purpose, in substance, I take Handcock's patent' and go through it, and say, 'This is the old

- (a) Mechanics' Magazine, 141.
- (b) Holmes v. the L. & N. W. R. Comp., 22. L. J. N. S. C. P.,

Reflection will shew the necessity for strictness, and particularly in cases where the invention is a combination of a new part with old parts, because it is then a question whether it shall be necessary to claim the parts when they are meant to be claimed, or to disclaim them when they are meant not to be claimed. That is, whether the description of the whole shall mean that the invention is of the whole and none of the parts, or of the whole and all its parts.

way,' and then, 'to that I add a new thing, namely, the suspending rods, which has the effect of bringing the bearing more effectually on the centre, and relieving the pressure as the edge.'"

Maule J., "The whole of those parts" (the old and new) "constitute his invention according to the plain sense of the specification. There is nothing said about one of those parts putting it in a different situation from any other, and, therefore, whatever is impliedly said about one part, is impliedly said about every other part."

Tetley's specification. The specification of Tetley's patent, February 1846 (11081), for "certain improvements in machinery for raising and impelling water, and other liquids, and also thereby to obtain mechanical power," (a) described a wheel with hollow spokes, which was admitted to be old. Lord Campbell C. J., in giving judgment, said, "It is quite clear that the patentee has described the wheel as part of the machinery for raising and impelling water. \* \* There is nothing here to shew that the claim of the wheel is not comprised in the specification. There is nothing in the specification anything like a disclaimer of the wheel, and what is specified as claims of invention would include the wheel. I think the patent is bad." (b)

Stevens v. Keating.

So in referring to a specification where the old and new parts were not defined, Pollock C. B. said, (c)

- (a) The additional words "and also thereby to obtain mechanical power" had been disclaimed.
- (b) Tetley v. Easton, 22. L. T. 134.
- (c) Referring to the specification of Martin's patent, Oct.

1834 (6688). Stevens v. Keating, 2 Exch. 772. The action was brought for the infringement also of another patent of Martin's, June 1840 (8528). See also Gibson v. Brand, 4 M. & G. 179. antè, p. 27.; Templeton v. Macfarlane, 1 H. L. 595. post., p. 79.

"It must either be a claim of all acids and alkalies. or of all acids and alkalies that will answer the purpose. If it be a claim of all acids and alkalies it is clearly bad. as there are some that will not answer the purpose. If it be a claim of those only which will answer the purpose, it is as clearly bad, in consequence of not stating those which will answer the purpose, and distinguishing them from those that will not."

In one case (a) a specification was held to be suffi- Reference to a cient. though the invention it described could not be Harmer v. ascertained except by comparing the specification with Playne. the specification of a prior patent enrolled in the same place, and by the same patentee, and referred to by him in his second patent.

The reasons of the Court for their opinion in upholding the specification were not given. Referring to the case, Mr. Hindmarch remarks, that by the reference to the former patent, the patentee shewed that his second invention did not include his first. (b)

In Holmes v. London & North Western Railway (c), Observations Jervis C. J. thus alluded to the above case: - "That decision (Harmer v. Playne) went a considerable way, since it held that it was sufficiently indicative of what the plaintiff claimed as old, when he said, 'I have got a patent for an old machine, to which I refer, and I seek

on the case by

- (a) Harmer v. Playne., 11 East, 101.
- (b) See observations on this case in Hind. on Pat. 195. "The former parts then being in fact disclaimed, and it being admitted by the defendant that the specification did sufficiently describe all parts of the machinery, the only effect of the decision in Harmer v. Playne is that reference being made to a former

specification, which is contained amongst the records of the same Court as the second, the first specification may be used as evidence to shew which of the parts or things mentioned in the second specification are not intended to be claimed as part of the second invention;" and see Dav. P. C. 157.

(c) 22 L. J. C. P. 57.

to improve that old machine,' and then went on to specify the old machine as improved."

Although the case occurred in 1794, it appears never to have been distinctly adopted as law, nor to have been as yet overruled.

Losh v. Hague.

In Losh v. Hague, (a) Lord Abinger C.B. said:—
"If having Paton's patent before him (the patentee), and seeing what Paton had invented, or if knowing by inquiry what Paton had made, and what Paton had sold, he had referred to that in his specification, and had stated the distinction between this and that, and had stated that such was the improvement he claimed, his patent certainly could not have been touched."

The reference, however, to a former patent in Harmer's second patent, (b) removes that case from the category of those in which an invention based upon that which is already known is not so mentioned as to indicate that part of the specification describes what was known. To such cases the remark of Dallas J. applies, "Nothing is said of any previous use of which the use proposed is averred to be an improvement, it is, therefore, a claim of entire and original discovery." (c)

Deduction.

It may be therefore laid down as, on the whole, the safer plan to follow, that when "old parts," either known generally, or disclosed in other patents, require to be described or alluded to in a specification as a groundwork for the description of the invention, they should be either distinctly stated to be known, or the new parts so distinctly defined as to leave no doubt as to what is really claimed, as the improvement or invention specified.

<sup>(</sup>a) 1 Web. P. R. 202.

<sup>(</sup>c) Hill v. Thompson, 1 Web.

<sup>(</sup>b) Antè, p. 75. n. (b).

P. R. 235.

## CLAIMS.

No particular form need be followed in the language Commenceof a claim; but the commencement of this part of the "elaim." specification is generally indicated by such words as the following. "I claim," or "Having particularly described my invention, and the manner in which it is to be performed, I claim as my invention," or "I do not claim as my invention [&c.], but what I do claim as my invention is," &c.

Primâ facie the patentee has as his invention all the machinery which he describes in the specification. (a)

If the patentee claim too much inadvertently, and not Inadvertency. fraudulently, yet he must answer for his inadvertence, and his patent will be avoided, unless he obtains leave to disclaim. (b)

"We think, the claim of the plaintiff in the action Claim, how is to be considered as founded on the true construction of construed. the patent and specification, and is not to be measured or

(a) Tetley v. Easton, 19 Jur. When the old and new parts of the description are properly distinguished, there is in fact a claim made to that which is new; and in this respect the observations above on "old and new parts" may be considered as applicable to the subject of claims. When improvements on a known process are claimed as the substance of an invention, after the further improvements of the process by means unknown at the time of the patent, the patented improve-

ments applied to the process are still included in the claim of the patentee, so long as the process remains the same with regard to the improvements claimed and their application. See El. Tel. Comp. v. Brett & Little, 10 C. B. 838., antè, p. 34. In the argument in the case of Unwin v. Heath, 2 W. B. R. 94., ante. p. 48., there are some observations on the point, and see post,

(b) Bovill v. Moore, Dav. P. C. 398.

ascertained, by the actual claim put forward and attempted to be supported by the evidence at the trial."(a)

On the other hand, if the invention has been "particularly described," the language of the claim will not be examined for a description, but for a definition of the invention; that is, the object of the claim is to ascertain the invention, and not to describe it. So also, if a patentee calls his invention a "method" when in fact it is something substantial, the verbal inaccuracy shall not vitiate the patent. (b)

Claim not a description.

"The claim is not intended to aid the description, but to ascertain the extent of what is claimed as new. It is not to be looked to as the means of making a machine according to the patentee's improvements. If therefore, the specification, as containing the description be sufficiently precise, it cannot be of any consequence that expressions are used in the claim which would be too general if they proposed to be part of the description." (c)

General claim bad. It is futile to endeavour, by a general rendering of the claim to embrace a particular class of substances without distinguishing that class.

We have seen (d) that such expressions as "other suitable substances" will not be held to be sufficient indication of those useful for the public to employ, as the inventor, and not the public, must determine what are "suitable substances." No fault is so readily committed in the claims of specifications as that of trying to escape the limitation which distinction necessarily introduces.

- (a) Pollock, C.B., in Bovill v. Pimm, 26 L. T. R. 312.
- (b) Collyer on Patents, 130 (note). See also, ib. p. 128.; but this must be distinguished from the fault mentioned in re-
- lation to the case of Kay v. Marshall, post, p. 79.
- (c) Cottenham, L. C. in Kay v. Marshall, 2 Web. P. R. p. 39.
- (d) See "Words and Terms of Art," antè, p. 55.

Thus in Stevens v. Keating (a), Pollock, C. B. referred Stevens v. as follows to the plaintiff's specification. "The question is, whether the specification be good or not. Only one alkali and one acid are mentioned in the specification; but manifestly the inventor does not confine himself to these. To what extent, then, does the claim of the plaintiff go beyond the alkali and acid named? It must either be a claim of all acids and alkalies, or of all acids and alkalies that will answer the purpose. If it be a claim of all acids and alkalies, it is clearly bad, as there are some that will not answer the purpose. If it be a claim of those only which will answer the purpose, it is clearly bad in consequence of not stating those which will answer the purpose, and distinguishing them from those that will not."

So the invention of a process ought not to be claimed Kay v. as that of machinery. In the case of Kay v. Marshall (b) in a patent for "New and Improved Machinery for Spinning Flax," the claim was for new machinery, whereas the machinery was old, and the improvement, if any, was maceration of the flax, rendering the old machinery ad-The patent was held bad. vantageous. description of the nature of the invention is to be learned from the whole specification, and if that is found to be new, the misnomer of it in a claim does not generally alter its validity as an invention. But the above case is different from this: the nature of the invention above is clearly indicated by the title; and though a new process may be detailed in the specification, yet it is not claimed, nor could it be so, or the mention of "machinery" as the essence of the invention would invalidate the patent by shewing a variance.

The omission of part of a process ought to be dis-Omission of tinctly pointed out, if it constitutes part of the inven- part of a pro-

<sup>(</sup>a) 2 Exch., 772.; and see (b) 8 Clark & Finnelly, 245. antè, p. 74.

Russell v. Cowley.

tion. In the case of Russell v. Cowley (a), however, the claim was held to be for welding without a mandril, although not so definitely worded, because no mandril was mentioned in the description, or indicated in the drawings.

The invention would not have been held to be properly described and ascertained, if an old process was detailed with the mere omission of one feature, unless such omission were claimed. The process, to be an invention, must be new in some respect by changes dependent upon the omission; otherwise it would, in fact, be merely a part of a former process, and as such be included in a claim to that process (to such extent). The simple omission, then, of a substance or operation would not constitute a new invention, unless the omission is pointed out and claimed, or the rest of the process is altered by the omission so as to be shewn by the description to be a new process, and not merely a part of an old one.

Strict construction of claims. The language by which the invention is claimed is therefore construed strictly, so as, on the one hand, to allow the public the free use of that which is not new and averred to be invented, and on the other to prevent a claim for what may be in fact old from being fastened on the patentee to the avoidance of his patent. (b)

Saunders v. Aston.

Thus in Saunders v. Aston (c), Lord Tenterden, C. J., held that the plaintiff was not shewn to rely upon a collet as the material part of his invention, although in his specification he said that the teeth of the collet when pressed down "materially serve to hold," &c.

Electric Telegraph. On the other hand in an action about electric telegraphs (d), it appeared that the plaintiffs' system was

(a) Antè, p.

(b) The justice of this rule, with regard to the privileges both of the patentee and of the public, is set forth antè, p. 46. n. (a),

and p. 73., n. (b).

(c) 3 B. & Ad. 881. (d) Elec. Tel. Comp. v. Brett & Little, 10 C. B. 838.; 20 L. J. C. P. 123. See antè, p. 53.

Little v. Brett.

worked by six wires, but no specific claim was made Company and to any particular number of wires or any particular system of making the signals. The defendants used only one wire, and made the signals in a different manner by counting repeated deflections of the needle. . Held, that a finding of the jury, "that as a whole the system of counting with one wire and two needles is not the same as the system of the plaintiffs," did not entitle the defendants to a verdict, the plaintiff's claim not being to any particular system, but to the particular improvement pointed out in his specification.

So also in Palmer's patent, June 1839 (8084.), for Palmer v. "improvements in lamps, and in the manufacture of candles" there was the following claim: "I claim the mode of manufacturing candles by the application of two or more plaited wicks as herein described."

Held, that this distinctly limited the invention to the mode of manufacture, and therefore the mere production of a candle in all respects similar to those so manufactured was not evidence of an infringement, unless the mode of manufacture was shewn to be the same. (a)

A fertile source of contention as to the meaning of Modes stated claims is afforded when the specification describes an invention in which apparently a new principle of construction or operation is set forth, and, after exemplifying it by a mode of performance, the patentee does not claim distinctly either the performance according

(a) Palmer v. Wagstaff, 8 Ex. Rep. 840. The minute strictness applied in the construction of claims was shewn in the case of Elliot's Patent, Dec. 1837 (7508.), for "improvements in the manufacture of covered buttons," in which much particularity is used in the wording of the claims and disclaiming parts of the specification. At a trial, however, of an action for infringing this patent, the principal question was the interpretation to be put on the word "or" as employed in the specification. Elliot v. Turner, 2 C. B., 446. (see ante, p. 58.

Bovill v.

to the prescribed principle by all modes, or the performance by only the particular mode explained. (a) In such cases the following direction may often be suitable.

"It appears to us that, when the subject is not new. as this certainly was not, namely, the cooling of substances undergoing the process of grinding, which had been long known to be a desideratum in grinding, and to effect which various contrivances had been adopted, and several if not many patents taken out, we think any patent taken out for a method of performing the operation is substantially confined to that method so disclosed, and cannot be extended to other methods obviously different, because they involve some common principle, applied to the common object and may apparently be described by the same general phrase."(b) It will be observed that this mistake in the manner of claiming an invention is similar to that mentioned above (antè, p. 79.). That consists in vagueness as to substances; and this consists in a like vagueness as to modes or methods. (c)

- (a) See observations by Crompton J. in Unwin v. Heath, post. p. 85.
- (b) Pollock, C. J., in Bovill v. Pimm, 26 L. T. R. 312.
- (c) The indiscriminate use of such terms as "mode," "method," "means," &c. further complicates the construction. If one term is correct, its repeated use (however apparently offensive to euphony) should be continued throughout. The inconvenience caused by neglecting this rule may be seen in the specification of Watt's Patent, Jan. 1769 (913.), in which it was said, "my method of lessening the consumption of steam, and consequently fuel, in fire-engines consists of the fol-

lowing principles." Referring to this, Rooke J. observes, in Boulton v. Bull, D. P. C., 162, "What does method mean, but mode or manner of effecting. A new invented method, therefore, conveys to my understanding the idea of a new mode of construction; and Heath J., "method is a principle reduced to practice." "When a mode of doing a thing is referred to something permanent, it is properly termed an 'engine,' when to something fugitive a 'method.'" Lawrence J., in Hornblower v. Boulton. Dav. P. C. 221. (237.), says, "Engine and method mean the same thing."

The title of Bridson's and Latham's patent, May Bridson's 1838 (7653.), was "Improvements in machinery or apparatus for stretching, drying, and finishing linen fabrics." In the specification the patentees referred to "the object of our improvements, viz., giving vibrating motion to the selvages of the cloth for the purposes above stated." The invention thus appeared to be of particular machinery, for a particular purpose; but the specification said at the close, "we desire it to be understood that any mode, even of moving one side or selvage of the cloth, whilst the other remains stationary, we shall consider to be an evasive imitation of our invention, if for the purpose of drawing the threads into diagonal positions by mechanical means, instead of manual labour:" and thus all machinery for diagonal motion was claimed as the invention. In giving Macalpine v. judgment in Macalpine v. Mangnall (a), where the patent was in dispute. Parke B. said. "The beginning and the end of the specification, it is true, rather bear the aspect of claiming the machinery for the whole pro-But taking the specification altogether, and giving its words a fair and reasonable interpretation, it seems to be obvious that the patentees only claim as their invention those improvements in the old machine, that give the vibrating motion to the fabric while in the course of drying."

Mangnall.

In Templeton's patent, July 1839 (8169.) (b), a dis-Templeton v. claimer after setting forth the specification, and disclaiming certain parts, proceeded thus: "And we declare that what we claim as new or improved and of our invention, is the mode hereinbefore described, of producing or preparing 'the stripes,' and the reweaving of such

<sup>(</sup>a) 3 C. B. 496.

<sup>(</sup>b) Templeton v. Macfarlane, 1 H. L. 595.

stripes," according to a particular plan (proved to have been already used).

Cottenham L. C., "On the real merits of the case, the question is, whether the party does not claim as new this mode of preparing the stripes which are "to be woven into the substance of the fabric." In the specification the party goes into an elaborate description of the mode of preparing the stripes. If that had been all, the patentee had nothing to do but to state what he used, and the mode in which he used it. He ought to have said that this was a new mode of arranging old materials, and had he said so that might have been sufficient to support the patent. But if the party uses such terms as the patentee does here, he states more than he has a right to claim . . . even that disclaimer shews that he claimed an improved mode of weaving." The patent was held bad, because the mode of weaving was found to be old.

The King v. Cuttler.

Another example may be given of the manner in which the very words of the specification are held to ascertain the essence of the invention. In The King v. Cuttler, the defendant summed up the claim in his specification thus (a): "My invention consists in this, that the fuel necessary for supplying the fire shall be introduced at the lower part of the grate, in a perpendicular or oblique direction." This was held to be a claim only to a particular direction of introducing the fuel at the lower part of the grate.

Heath's specification.

In Heath's specification, part of the invention was thus claimed: "And fourthly, the use of carburet of manganese in any process whereby iron is converted into cast steel;" and the process so claimed is described thus: "I do it by introducing into a crucible bars of steel &c. . . . along with from one to three per cent of

<sup>(</sup>a) Antè, p. 63. See H. on Pat. 165.

their weight of carburet of manganese." The court was Heath v. divided (a) as to whether the use of the carburet was so Unwin. claimed as to include the use of the elements out of which the carburet was formed.

Crompton J. "I think that the discovery claimed is the use of the carburet in the manufacture, and that it is not limited to the mode of working mentioned in the specification, which I think the plaintiff gives merely as a means of working his invention."

Platt B., Erle J., and Wightman J. concurred.

Coleridge J. and Alderson B., while admitting that an equivalent had been used by the defendant, considered that it was not known to be such at the date of the specification, and that the use of these elements as an equivalent could not therefore be included in the claim.

The claim was afterwards held by the House of Unwin v. Lords (b) to cover only "the use of carburet of manga-Heath. nese;" and as the mode explained for using it distinctly prescribed proportions, and was otherwise particularised, the use of other substances (though forming the carburet in their use) was held not to be claimed. It is evident that, if the jury were to be guided by the evidence as to whether such substances were known at the date of the patent to be equivalent or not, there would be a new and complicated issue introduced into the trial of such The remarkable division of opinion amongst lords and judges in this case, shows the necessity of clearness in framing a claim of this kind.

In Bateman's specification (c), the invention was thus Bateman v. claimed: "We claim as an invention, first, . . . secondly, the &c. : . . thirdly, the . . . " describing

<sup>(</sup>a) Unwin v. Heath, ante, p. (c) Bateman v. Gray, 8 Ex. 906. See antè, p. 30.

<sup>(</sup>b) See antè, p. 44.

three distinct and separate parts. The inventor allowed that his invention was for the combination; and it was held that this manner of describing it claimed the separate parts. In this case, however, there was no issue raised as to the sufficiency of the specification. It should have been, "we claim as an invention the machine which consists in, "first." &c.

The words, " as described."

Sometimes there is introduced into the claim the phrase, "as described," or, "as above described," or, "hereinbefore described." It will be seen by the following cases, that the introduction of words such as these requires considerable care to adjust the remaining part of the description to the real intention of the patentee (a).

These words are distributive. The effect of the words "hereinbefore described," is not absolutely to limit the invention to the definition given of it in the foregoing parts of a specification, as a whole only, but the words may apply to each part of the description, and claim that as part of the invention. The use therefore of a substantial part of the process described, even if the rest be not used, may amount to an infringement.

Smith v. L. & N. W. Railway. Thus in Smith v. London & North Western Railway Company (b), it was argued that an invention consisting of several parts, but claimed as a combination "in manner hereinbefore described," could not be infringed by an imitation of one of the parts. The contrary, how-

(a) See post, p. 94. n. (b) "Nothing really is gained (or lost) by a verbal generalization such as, 'I do not claim what is old,' or, 'I claim all variations of what I have described.' This is merely repeating what the law would employ; and so, also, when the claim is about to define, but breaks off at

the vital point with a 'hereinbefore described,' it is often impossible to understand how much of the previous description is intended to be included in the invention." Turner on Patents, p. 39.

(b) 2 E. & B. 69. See also Bush v. Fox, 9 Ex. 651., and 22 L. T. 349. post, 87.

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ever, was decided, so that it may be considered that the words "in manner hereinbefore described," are distributive and apply to each part of the invention. -

So in the following case, where a mode both of construction and of using had been described, the expression "as above described," was again held to be distributive, so that the mode of construction was held to be claimed.

Bush's patent, Sept. 1841 (9094.), was for "Im- Bush's patent. provements in the means of, and in the apparatus for, building and working under water." In the specification it was said, "My invention relates to means and apparatus for working under water," &c. The claim proceeded thus: --

"What I claim is the mode of constructing the in- Claim. terior of a caissoon in such manner that the workpeople may be supplied with compressed air, and be able to raise the buildings excavated, and to make or construct foundations and buildings as above described." The manner described of constructing caissoons was Bush v. Fox held to be claimed, and not only the use of them so constructed when employed under water; for the mere application under water of a mode used on dry land, and not limited to dry land, would not be a subject for a patent (a).

The distributive application of the words is, however, limited by distinct announcements which limit the invention. In Dickinson's patent, March 1845 (10,563.), Dickinson's for "certain improvements in looms for weaving," the patent. specification says "My invention consists in a novel arrangement of mechanism for instantly stopping the loom." After describing that part of the machine intended for the above purpose, there are other parts described, intended for other operations. In the claim the patentee says, "I claim as my invention the above

<sup>(</sup>a) Bush v. Fox, 9 Ex. 651.; and see last case.

described novel arrangement of mechanism." Held, that the arrangement claimed was not the whole of that above described, but only that for instantly stopping the loom." (a)

Williams's patent.

The specification of Williams's patent, Feb. 1840 (8387.), after describing the whole process of making cloth by his machinery, said, "I do not claim as my present invention any individual parts of the same, but I claim the adaptation of," &c., "as herein described, and the different means herein described for," &c.

Allan v. Rawson. This was held to be a claim limited to the mode described (b).

The words, "as described," &c., are also construed strictly, so as to indicate particular means and not classes of instruments. Thus in Bates' patent, March 1836 (7017.), the patentee claimed as follows: "What I do claim is the submitting (&c.), to the pressure of hot boxes or surfaces (&c.), as above described." And this was held not to include the use of rollers which had not been invented or contemplated by the inventor. (c)

Barber v. Grace.

Claim of a part found to be useless.

Lewis's specification. The difference between the effect of a claim of that which is old, and a claim of that which is not useful is well illustrated in the following case.

In Lewis' patent (d), the specification had several claims; one of them being to, "thirdly, the application of a proper substance fixed on or in the cylinder A (referring to the Drawing), to brush the surface of the cloth to be shorn," and, "fourthly, the described method of shearing cloth across from list to list by a rotatory

- (a) Sellers v. Dickinson, 20 L. J. Ex. 417. See Mac Nees' disclaimer, inserting words, "hereinbefore described," post, p. 94. n. (b)
- (b) Per Coltman J., Allan v. Rawson, 1 C. B.551. (571.)
- (c) Barber v. Grace, 1 Ex. 339.
  - (d) See ant è, p. 43 n. (d)

cutter." The brush for the cloth was soon found to be naeless.

In the judgment in Lewis v. Marling (a), it is said, Lewis v. "As to the objection on the ground that the application Marling. of a brush was claimed as a part of the invention, adverting to the specification, it does not appear that the patentee says the brush is an essential part of the machine, although he claims it as an invention . . . agree that if the patentee mentions that as an essential ingredient in the patent article, which is not so, nor even useful, and whereby he misleads the public, his patent may be void, but it would be very hard to say that this patent should be void because the plaintiffs' claim to be the inventors of a certain part of the machine not de-

Parke B. "There is no case deciding that a patent for several things is void because one of them, supposed to be useful, turns out not to be so."

scribed as essential, and which turns out not to be

Referring to the above case, Lord Denman said (b): "On examination of the case of Lewis v. Marling, we found that the Court there only said that the claim of some part of the machine, which turned out to be useless, did not vitiate the patent. This is certainly a very different thing from describing a part of the machine as capable of co-operating in the work, when in fact it is incapable, even though, at the same time, other means are described, which might be effectually employed." (c)

useful."

<sup>(</sup>a) 10 B. & C. 22., and ante, p. 43 n. (d).

<sup>(</sup>b) In R.v. Cuttler, Macrory's Rep. 137.

<sup>(</sup>c) See Appendix G. for an example of a claim disclaimed by disclaimer (patent 1852. (92.)).

## DISCLAIMER AND MEMORANDUM OF ALTERATION.

WE have hitherto considered the language of the specification before its delivery to the public by enrolment under the old law, or filing under the present Act, but the law permits certain alterations to be made after this delivery upon particular conditions. (a)

Disclaimers and alterations. By sect. 39. of the Act (b) it is enacted that "all the provisions of 5 & 6 Will. 4. c. 83., and of 7 & 8 Vict. c. 69., respectively relating to disclaimers and memoranda of alteration in letters patent and specifications, "except as hereinafter provided, shall be applicable and apply to any letters patent granted, and to any specification filed (c) under the provisions of this Act." The provisions alluded to under the above exception relate to matters of form. They substitute filing for enrolment, and the patent office for that of the law officer's; but they do not effect the language or purpose of the instruments to be used.

We are thus referred to the former practice in relation

- (a) For examples, see Appendix G. When a disclaimer is printed, it is numbered by the same number as the patent to which it relates, but with an asterisk affixed. Thus the disclaimer of the patent A. D. 1853, No. 2570, is numbered No. 2570.\* When the disclaimer is filed before the specification is printed these are both printed together as a "specification with disclaimer annexed." For a case of this kind see A. D. 1853, No. 2450.
- (b) 15 & 16 Vict. c. 83.
- (c) As to disclaimer of part of the title, see Morrison's patent, Aug. 1853 (1843.). In Sharp's patent, Oct. 1852 (151.) the title and provisional specification described two parts; the final specification described only one. A disclaimer was filed June 28. 1853, altering the title and provisional specification, but not referring to the final specification. For clerical errors, see ante, p. 4. n. (c).

to those documents and (recollecting the above substitutions) so far as concern our present object, it is as follows: --

By 5 & 6 Will. 4. c. 83. s. 1., the patentee or Words of the assignee (a) may (with the leave of the law officers), if Act. he think fit, "enter a disclaimer of any part of either the title of the invention or of the specification, stating the reason for such disclaimer, or may, with such leave as aforesaid, enter a memorandum of any alteration in the said title or specification (not being such disclaimer or such alteration as shall extend the exclusive right granted by the said letters patent); and such disclaimer or memorandum of alteration, being filed by the said clerk of the patent, and enrolled with the specification, shall be deemed and taken to be part of such letters patent, or such specification in all courts whatever."

The language of the disclaimer or memorandum of Language to alteration, then, must be such as: 1. To comply with the rules laid down by the law officers and Patent law Commissioners: 2. To effect its object without extending the exclusive right granted by the letters patent.

The discretion of the law officer in allowing or re-Discretion of fusing a disclaimer or memorandum of alteration is gene- law officer. rally absolute, and the only rules followed are those relating to the form of application and certificate (b), and other similar proceedings, as advertisements, &c., which may be passed by in considering the language of the disclaimer itself.

The law officer is to judge himself of the effect of a Finding of a proposed disclaimer; thus, in the case of Bateman's spe-

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<sup>(</sup>a) This in relation to the assignee is provided by 7 & 8 Vict. c. 69, sect. 5.

<sup>(</sup>b) See rules in Appendix A.

application for disclaimer.

cification, when, on an application for a disclaimer, it was urged that the finding of a jury had decided the nature of the patentee's claim in his specification, Bethell, Sol.-Gen. said, "Upon the application for a disclaimer, I think the matter must be decided on the words of the application itself; I cannot accept the finding of a jury on such a point as an argument in favour of the application." (a)

"It is difficult to lay down any certain rule respecting the cases in which disclaimers are available or expedient. The power granted by the statute is, however, chiefly applicable to cases in which patentees, after they have obtained their patents, find that they have included something for which a patent cannot be sustained. (b)

Cases for disclaimer.

Among these cases are such as avoid the patent by omitting to include something in the title (c), which the rest of the specification claims, or by including as part of the invention, that which is not new, or which is of no use, or which does not effect what the specification describes it to do.

The disclaimer must show the reason for making it by stating, for instance, that the patentee has discovered that the parts sought to be disclaimed are not new or have some other defect, such as stated above, or that doubts are entertained respecting such matters. (d)

Intention of patentee.

The allowance of a disclaimer is, to a certain extent, dependent upon the manifest intention of the patentee, being that which by the proposed disclaimer will be effected.

Harrison's patent.

Thus in the case of Harrison's patent, Jan. 1841 (8118.), after the decision upon it given in Holmes v.

<sup>(</sup>a) Macrory's Reports, 116. See the disclaimer, Appendix, p.

<sup>(</sup>c) See antè, p. 46. note (a).
(d) See Appendix G. for forms of these.

<sup>(</sup>b) Hind. on Pat. p. 206.

L. & N. W. Railway Company (a), an application was made for leave to enter such a disclaimer as would show that the combination of parts, and not each part separately, was claimed: and it was urged that it was evident. from the language of the specification, the patentee intended to claim only the combination. (b)

So also in the argument in the application for leave Bateman's to file a disclaimer in Bateman's case before Bethell. Sol.-Gen. He said, "Your argument is directed to the nature of the apparatus; whereas, I wish you to direct it to the construction of the specification, and point out from it that the intention of the patentees was to claim only the combination" (c); and afterwards in giving his decision, "I would not have allowed the disclaimer unless I had found in the description some indication of an intention to claim the apparatus as a whole." (d)

In Tetley's patent, Feb. 1846 (11,081.), for "certain Ineffectual improvements in machinery for raising and impelling water and other liquids, and also thereby to obtain mechanical power," there were nine claims. verdict for the defendant in the case of Tetlev v. Easton (e), a disclaimer was enrolled (f) (without opposition). In a second action, a verdict was found for the defendants and a rule nisi having been obtained to set the verdict aside, the case was argued in the Queen's Bench, and the rule discharged (q) The disclaimer

- (a) Macrory's Reports, 4., and see the disclaimer, post, p. 117.
- (b) The disclaimer was allowed (on certain terms), and it will be found in extenso in Appendix G., where see also an example of a disclaimer of the whole claim of a patent.
  - (c) Macrory's Reports, 117.
  - (d) Ib. 119. In Bateman's
- case leave was granted to enter the disclaimer (given at length in the Appendix G.). The original application asked also for the insertion of the words "in combination with" between two clauses, but this was refused.
  - (e) Macrory's Reports, 48.
  - (f) Given in extenso, ibid. 39.
  - (g) Ibid. 83.

was therefore ineffectual as a remedy for the defects of the patent.

Effect of the language.

With respect to the language to be used in a disclaimer, it seems that the true question in all cases will be, whether a disclaimer or alteration made by a patentee would have the effect of extending the patent privilege if the patent were a valid patent at the time the disclaimer or alteration is filed. (a)

Disclaimer of title.

Where the specification requires a disclaimer, it is sometimes unnecessary to amend the title of the patent, but the propriety of doing so should be considered. (b)

Memorandum of alteration.

"A memorandum of alteration is available for the purpose of correcting any mistake or misdescription in the title of the invention or in the specification, or for the purpose of explaining anything in the specification which is not sufficiently intelligible." (c)

No reason need be given. No reason is required by the Act to be stated for a memorandum of alteration, but it is usual in practice to give the reasons as in the case of disclaimers.

A disclaimer and memorandum of alteration may both be effected by the same instrument.

Indeed, the distinction which formerly obtained between them has been gradually laid aside, and the terms are at present employed as synonymous. (d)

Disclaimer or memorandum is part of the specification. When a disclaimer or a memorandum of alteration has been duly filed under 5 & 6 Will. 4. c. 83., the disclaimer or memorandum will be "deemed and taken

- (a) Hind. on Pat. 210. The disclaimer of Mac Nees' patent, Jan. 1852 (13898.), inserted the words "hereinbefore described" in a claim.
- (b) R. v. Mill, 10 C. B. 379. (antè, p. 16.) See also Wallington v. Dale, antè, p. 29. n., 30. n.; and see antè, p. 90. n. (c).
- (c) Hind. on Pat. 209. Errors in relation to the letters of reference in drawings may be thus rectified. See antè, p. 65. note (a), and Appendix G. p. 124.
- (d) Reg. v. Newton (1845).26 L. J. 36. Coryton on Pat. p. 182.

as part of the letters patent or specification from thenceforth."(a)

When, therefore, application was made to the Master And cannot of the Rolls to cancel a memorandum of alteration be cancelled. (entered under 5 & 6 W. 4. c. 83.) which it was alleged extended the patent right, and infringed on petitioner's patent: held, that the Master of the Rolls had no jurisdiction to order such memorandum of alteration to be expunged. (b)

It is apprehended that a second disclaimer or memorandum of alteration might in such a case be applied for, and if allowed, might restore the specification to its original form.

We are, therefore, in these cases somewhat in the same position as with regard to the allowance and rejection of titles or provisional specifications (c), and thus the discretionary power of the law officers has almost the sole control over the first and last dealings with a specification, while the contest as to its validity after the patent is sealed, and, until there is found in it a fatal defect, is left to the litigation of private individuals.

It must not be forgotten that many of the dis- Disclaimer not claimers allowed by the law officers without opposition precedent. by parties interested may be supposed to have been so allowed by an extension of indulgence, and are therefore not precedents in cases where opposition is offered.

The absence of information as to disclaimers sought to be entered, but rejected by the law officers mero

(a) Parke B. in Perry v. Skinner, 2 M. & W. 471. See also Creswell J. in Stocker v. Warner, 1 C. B. 148. "The effect of the statute is to render the disclaimer, when made, a part of the patent and specification. The original patentee from the

moment of the disclaimer became patentee of the disclaimed part." Parke B., in giving judgment in Clark v. Kenrick, 13 L. J. N. S.

- (b) Sharp's patent, Ex. Wordsworth, 3 Beavan, 245.
  - (c) See antè, p. 8. n. (a).

motu, or after opposition from other parties renders it always a matter of uncertainty to pronounce as to the probability or otherwise of any proposed disclaimer being allowed.

Amendment of

Lord Langdale, M. R., thus referred to the power of clerical errors, amendment (a): "It would seem that it has always been usual to amend clerical errors. When errors have been made in grants, as was said, 'per incuriam et ex inani inadvertentia scriptoris,' they have been amended by the Master of the Rolls, sometimes under the authority of a warrant from the Crown, sometimes with the consent of the Attorney-General, sometimes in consequence of a reference to him by the Lord Chancellor, and there is an instance of an amendment being made by an order of the Lord Chancellor pursuant to an order of the King. The errors have been proved and rectified by comparison with the writ of privy seal, or with the signed bill, or with the original grant."

Amendment by Master of the Rolls.

The Master of the Rolls has jurisdiction to interfere for the correction of errors in the records of the specifications of patents, but only for the correction of clerical errors. (b) The power exercised, therefore, is not so much that of altering the records as that of superintending them to ensure their being correct enrolments of the intentions of the parties sending them. (c)

Date amended. Christian name amended.

In Ruberry's case (d) a date in the specification was altered by the Master of the Rolls, and a Christian name in Dismore's case. (e)

- (a) Sharp's patent, 3 Beavan, 245.
- (b) As to errors in the provisional specification before the final specification is filed, see antè, p. 4. note (n).
  - (c) See article in the Jurist,
- vol. 18. pt. ii. p. 278., citing Dismore's case, in which the error really lay with the agent of the patentee. Also 17 Jur. pt. ii. p. 405.
  - (d) 5 Russ. 44.
  - (e) 18 Beavan, 538.

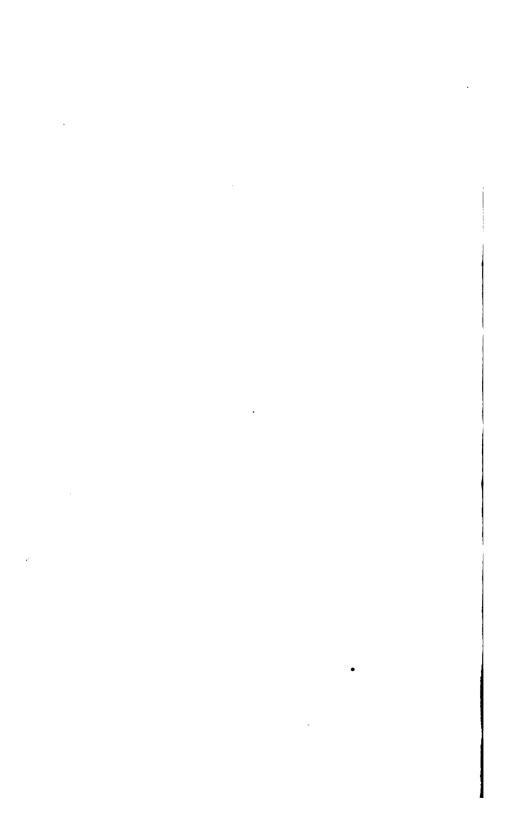
The Patent of Christopher Nickels (a), April, 1838 Words (7621), was for "improvements in machinery for covering fibres applicable to the manufacture of braid and other fabrics."

The reference to this patent in the Chronological index has the following note: - "This patent was resealed on the 19th of Jan. 1844, for the purpose of inserting the word 'covering' in lieu of the word 'recovering,' pursuant to the Lord Chancellor's order of the above date." (b)

In Whitehouse's patent, the word "wire" was, by a clerical error, written "fire," and this was amended, (c) Errors of this kind seem to have been always amendable at common law.

- (a) Twenty-nine patents were granted under this name from 1836 to 1852, five in 1853, and one in 1854.
- (b) The Master of the Rolls joined in this order. Norman on Patents, p. 104.
  - (c) 1 W. P. R. 657, (n.)

## APPENDIX.



## APPENDIX.

#### A. Rules.

Among the rules and regulations issued by the Commissioners the following relate to the subject of this work or are referred to in the foregoing pages:—

FIRST SET OF RULES AND REGULATIONS under the Act 15 & 16 Vict. c. 83., for the passing of Letters Patent for Inventions. (Dated Oct. 1. 1852.)

I. All petitions for the grant of Letters Patent, and all declarations and provisional specifications, shall be left at the said Commissioners' office, and shall be respectively written upon sheets of paper of twelve inches in length by eight inches and a half in breadth, leaving a margin of one inch and a half on each side of each page, in order that they may be bound in the books to be kept in the said office.

II. The drawings accompanying provisional specifications shall be made upon a sheet or sheets of parchment, paper, or cloth, each of the size of twelve inches in length by eight inches and a half in breadth, or of the size of twelve inches in breadth by seventeen inches in length, leaving a margin of one inch on every side of each sheet.

ORDER OF THE LORD CHANCELLOR. (Dated Oct. 1. 1852.)

I. All specifications in pursuance of the conditions of Letters Patent, and all complete specifications accompanying petitions and declarations before grant of Letters Patent, shall be filed in the Great Seal Patent Office.

II. All specifications in pursuance of the conditions of Letters Patent, and all complete specifications accompanying petitions for the grant of Letters Patent, shall be respectively written bookwise upon a sheet or sheets of parchment, each of the size of twenty-one inches and a half in length by fourteen inches and three-fourths of an inch in breadth; the same may be written upon both sides of the sheet, but a margin must be left of one inch and a half on every side of each sheet.

III. The drawings accompanying such specifications shall be made upon a sheet or sheets of parchment, each of the size of twenty-one inches and a half in length by fourteen inches and three-fourths of an inch in breadth, or upon a sheet or sheets of parchment, each of the size of twenty-one inches and a half in breadth by twenty-nine inches and a half in length, leaving a margin of one inch and a half on every side of each sheet.

Note. — It is recommended to applicants and patentees to make their elevation drawings according to the scale of one inch to a foot.

SECOND SET OF RULES AND REGULATIONS under the Act 15 & 16 Vict. c. 83., for the passing of Letters Patent for Inventions. (Dated Oct. 15. 1852.)

VIII. A provision is to be inserted in all Letters Patent in respect whereof a provisional and not a complete specification shall be left on the application for the same, requiring the specification to be filed within six months from the date of the application.

IX. No amendment or alteration, at the instance of the applicant, will be allowed in a provisional specification after the same has been recorded, except for the correction of clerical errors or of omissions made per incuriam.

X. The provisional specification must state distinctly and intelligibly the whole nature of the invention, so that the law officer may be apprised of the improvement, and of the means by which it is to be carried into effect.

ORDER OF THE LORD CHANCELLOR. (Dated Oct. 15. 1852.)

Every application to the Lord Chancellor against or in relation to the sealing of Letters Patent, shall be by notice, and such notice shall be left at the Commissioners' Office, and shall contain particulars in writing of the objections to the sealing of such Letters Patent.

THIRD SET OF RULES AND REGULATIONS under the Act 15 & 16 Vict. c. 83., for the passing of Letters Patent for Inventions, and under the Act of the 16 & 17 Vict. c. 115. (Dated Dec. 12. 1853.)

I. Every application for Letters Patent, and every title of invention and provisional specification, must be limited to one invention only; and no provisional protection will be allowed or warrant granted where the title or the provisional specification embraces more than one invention.

II. The title of the invention must point out distinctly and specifically the nature and object of the invention.

III. The copy of the specification, or complete specification, directed by the Act 16 & 17 Vict. c. 115. s. 3., to be left at the office of the Commissioners on filing the specification, or complete specification, shall be written upon sheets of brief or foolscap paper, briefwise, and upon one side only of each sheet. The extra copy of drawings, if any, left with the same, must be made as heretofore, and according to the directions contained in Rule III. of the Lord Chancellor, dated the 1st October, 1852.

IV. The copy of the provisional specification to be left at the office of the Commissioners on depositing the same shall be written upon sheets of brief or foolscap paper, briefwise, and upon one side only of each sheet. The extra copy of drawings, if any, left with the same, must be made as heretofore, and according to the directions contained in Rule II. of the Commissioners, dated the 1st October, 1852.

V. All specifications, copies of specifications, provisional specifications, petitions, notices, and other documents left at the office of the Commissioners, and the signatures of the petitioners or agents thereto, must be written in a large and legible hand.

## B. Arrangement.

THE following provisional specification is given here to show one system of arrangement in describing the parts of the invention. By comparing it with the final specification which succeeds it, the adoption of a similar order in the more particular description will be observed.

Provisional Specification of R. O. for the Invention of "Improvements in the Manufacture and Revivification of Animal Charcoal."

I R. O., of [&c.], do hereby declare the nature of the said invention for "Improvements in the Manufacture and in the Revivification of Animal Charcoal" to be as follows:—

First. I employ carbonic acid, as the product of the combustion of fuel at gradually increasing temperatures, for the destructive distillation of bones and manufacture of animal charcoal.

Second. I employ carbonic acid, or the product of the combustion of fuel, for the removal of lime, and with it other impurities, from charcoal that has been used in the refining sugar.

Third. I employ carbonic acid, or the products of the combustion of fuel, at gradually increasing temperatures, for drying the animal charcoal, after it has been treated with the same agents, for the removal of lime, as before described, and thus completing the process of revivification.

## Final Specification of the same.

To all [&c.]. Whereas [&c.]. Now know ye, that I the said R. O. do hereby declare the nature of the said invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say.

First [as in provisional specification].

Secondly [as in ditto].

Thirdly [as in provisional specification].

Having thus stated the nature of my said invention, I

#### APPENDIX B.

will proceed to describe the manner of performing the same.

The first part of my invention [&c. &c.].

I will now describe the second part of my invention [&c.].

In drying such prepared previously used animal charcoal, according to the third part of my invention [&c.].

Having thus described the nature of my said invention, and the manner of performing the same, I would have it understood that I do not confine myself to the arrangement of apparatus described; but what I claim is,—

First, the passing of heated carbonic acid, or the products of the combustion of fuel, amongst bones when manufacturing animal charcoal;

Secondly, I claim the employment of carbonic acid and water to separate lime in the revivification of animal charcoal:

And, third, I claim the drying or reheating animal charcoal, in retorts or apparatus subject to streams of heated carbonic acid or products of combustion of fuel.

> In witness [&c.], R. O.

#### C. I. Form.

THE following form of provisional specification has been used for an invention communicated from abroad:—

I A. B., of [&c.], do hereby declare the nature of the said invention of certain improvements in the construction of buildings—a communication—to be as follows: The invention communicated to me consists in rendering walls or buildings [&c.].

## II. Description.

The following are examples of the descriptive parts of provisional specifications:—

Hussey's provisional specification.

"Provisional Specification of Hussey's Patent, Nov. 1852 (697.), for 'Improvements in Reaping Machines.'

[Introduction as ante, p. 7. to the words in form "as follows."]

"This invention consists of making the cutting blades, or knives, with one or more holes or slots through them, with a view to clear them and their guards of any grass which may remain, and also in making a longitudinal indent with as square edges as may be in each cutter, in order to obtain strength, and also to aid in keeping the cutters and their guards clear of grass or weeds.

"The cutter frame, or apparatus, moves on the ground as a sledge, and by cams is raised more or less off the ground, and in place of the cutters working against and receiving support from the guards, I cause them to work independently and free from the guards, and I apply or form projections on the cutter bar to give support to the cutters."

Lancaster's provisional specification.

Lancaster's Patent, Jan. 1853 (47.), for "An Appendage to Bullet Moulds."

## [Introduction as in form.]

"It consists in adapting and applying to the inside of the orifice of the mould through which the lead is poured a cutting edge, or cutting tool. After the mould has been filled the cutter is brought into action, and the bullet leaves the mould perfect." (a)

(a) This is again used as the commencement of the final specification.

Provisional Specification of the Patent of J. K. H. & D. P. for the Invention of "A Calendar Inkstand," Jan. 1855(12.). (b)

"We J. K. H. & D. P., of L., in the county of M., do hereby Clerical declare the nature of the said invention for a calendar inkstand to be as follows: and consists (sic) of a calendar or system of calendars, placed vertically or horizontally, in combination with an inkstand of any form or design."

Hargreaves and Fletcher's Patent, Feb. 1854 (257.), for Provisional "Certain Improvements in Machinery for preparing to be spun Cotton and other fibrous Materials."

specification with technical terms.

## [Introduction as in form.]

"Our invention relates, first, to machines for opening and cleaning, having the character of the machine known as In that machine the fibrous material is the 'scutcher.' acted upon, when entering between rollers, by blades or thin bars, which are carried upon arms fixed upon an axis (commonly called the 'beater'), which is made to revolve rapidly, causing the blades or bars to strike the entering fibrous material parallel with the rollers. Our invention consists principally in substituting, in place of the blades or bars referred to above, either wholly or partly card or toothed surfaces, which may be fixed on arms or cylinders. We anticipate that the-speed which will be found necessary and advantageous will be less than that required by the common beater, and that some modifications may be required in the accessory parts, which will be ascertained by further experiment. The second part of our invention relates to improved mechanism applicable to the next stage of preparation for cleaning and straightening, or to the carding engine. It consists in rendering a straight or toothed edge applied to the "licker-in," adjustable to it, which is done by bringing it on centres or pivots, and in using screws to retain it in its position."

## [Conclude as in form.]

(b) The allowance of clerical errors and the amount of accuracy insisted on may be discerned from this example.

## D. Complete Specification.

THE following are examples of complete specifications:—

With drawings. Complete Specification of F. H. W.'s Patent, Feb. 1854 (252.), with drawings.

"To all to whom these presents shall come, I F. H. W., of [&c.], do hereby declare the nature of the said invention of [title], and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof (reference being had to the drawings hereunto annexed, and to the figures and letters marked thereon); that is to say [describing the invention as in the case of the final specification].

"In witness whereof." [&c.]

Conclusion.

Complete Specification of Larbaud's Patent, May, 1853 (1102.).

"I Charles Larbaud do hereby declare the nature of the said invention for 'a new system of trigger applied to play arms, such as pistols, fusils, rifles, guns, and cannons,' to be as follows: Description of the several pieces composing the ensemble of my new system of trigger." [The description was given, and without formal conclusion.]

(Signed)

CH. LARBAUD.

(L. s.)

Communicated from abroad. Complete Specification of A. E. L. B.'s Patent (being a Communication from a Foreigner residing abroad), Jan. 1855 (79.).

"I A. E. L. B——, of [&c.], do hereby declare the nature of the said invention for [title], a communication from Messrs. R. M. & J. F., both of Strasbourg, empire of France, to be as follows, viz." [describing as in the case of a final specification].

## I. Specification of Patent in India.

By an Act of the Legislative Council of India, passed Specifications Feb. 28. 1856, the right of invention may now be effectually secured in India (b). With respect to the language of the specifications of inventions in India, it is necessary here only to allude to the following regulations. The specification is to be filed within six months after a "petition" is allowed (no provisional specification seems to be contemplated). British patentees may protect their inventions in India, by applying by petition within six months after the date of their British patents.

On applications to declare the Indian privilege void (similar to writs of scire facias in Britain) amendments may be sanctioned in the language of the specification. Importers may be "inventors," but the exclusive privilege to them is void if they do not successfully work the invention after two years from the date of the petition.

## American Form of Specification.

The substantial requisites of the specification are set forth Specifications in the Act of Congress of 1836, sec. 6. The following in America. may be taken as a specimen of the proper form. (b)

To all whom it may concern.

Be it known, that I John Fitch, of Philadelphia, in the State of Pennsylvania, have invented a new and improved mode of preventing steam-boilers from bursting, and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing the upper part of a steam-boiler with an aperture in addition to that for the safety-valve; which aperture is to be closed by a

<sup>(</sup>a) See the Act in extense with observations, published by Mr. R. A. Browman, 166, Fleet Street, London.

<sup>(</sup>b) Rules of the United States' Patent Office (p. 3.), Feb. 20. 1854. (A printed copy may be consulted in the Great Seal Patent Office library.)

plug or disc of alloy which will fuse at any given degree of heat, and permit the steam to escape, should the safety-valve fail to perform its functions. To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation. I construct my steam-boiler in any of the known forms, and apply thereto gauge-cocks, a safety-valve, and the other appendages of such boilers; but, in order to obviate the danger arising from the adhesion of the safety-valve, and from other causes, I make a second opening in the top of the boiler, similar to that made for the safety-valve, as shown at A in the accompanying drawing; and in this opening I insert a plug or disc of fusible alloy, securing it in its place by a metal ring and screws or otherwise. The fusible metal I in general compose of a mixture of lead, tin, and bismuth, in such proportions as will insure its melting at a given temperature, which must be that to which it is intended to limit the steam, and will of course vary with the pressure the boiler is intended to sustain.

I surround the opening containing the fusible alloy by a tube B, intended to conduct off any steam which may be discharged therefrom.

When the temperature of the steam in such a boiler rises to its assigned limit the fusible alloy will melt and allow the steam to escape freely, thereby securing it from all danger of explosion. What I claim as my invention, and desire to secure by Letters Patent, is the application to steam-boilers of a fusible alloy which will melt at a given temperature, and allow the steam to escape as herein described, using for that purpose the aforesaid metallic compound, or any other substantially the same and which will produce the intended effect.

JOHN FITCH.

Witnesses.

ROBERT FULTON.

OLIVER EVANS.

#### F. Drawings.

MECHANICAL notation exemplified on the Swedish Calculating Machine of Messrs. Scheütz, by Henry P. Babbage. (a)

"The system of describing machinery, of which I am about Notation for to give a brief outline, is not new. It was published by drawings. Mr. Babbage in the 'Philosophical Transactions' in the year 1826, where apparently it did not attract the notice of those most likely to find it practically useful. It had been used for some years before this in the construction for the government of the difference engine, which is now in the museum at King's College, London, and it was also used in the contrivance of the analytical engine, on which my father was engaged many years. Indeed, without the aid of the mechanical notation, it would be beyond the power of the human mind to master and retain the details of the complicated machinery which such an engine necessarily requires. Its importance as a tool for the invention of machinery for any purpose is very great, since we can demonstrate the practicability of any contrivance, and the certainty of all its parts working in unison before a single part of it is actually made. It is also important, both as a means of understanding and of explaining to others the mechanism of existing machinery; for it is utterly impossible to make the notation of a machine without comprehending its action in every single part. There are also many other uses, which I shall not now stop to mention. The general principles of the notation are the same now as in 1836, but the practical experience of many years has of course suggested several alterations of detail, and led to the adoption of some important principles.

"To understand the construction of a machine we must know the size and form of all its parts, the time of action of each part, and the action of one part on another throughout the machine. The drawings give the size and form; but they give the action of the parts on each other very imperfectly, and scarcely anything of the time of action. The notation supplies these deficiencies, and gives at a glance the required information. When the drawings of a machine are made it becomes necessary to assign letters to the different parts. Hitherto, I believe, this has been left much to chance, and each draughtsman has taken the letters of the alphabet, and used them with little or no system. With respect to lettering, the first rules are, that all framework shall be represented by upright letters, moveable pieces shall be represented by slanting letters. Each piece has one or more working points; each of the working points must have its own small printed letters, and the working points of the moveable pieces have small written letters.

"Thus we have machinery divided into framing, indicated by large letters, as A, B, C, &c. Moveable pieces, indicated by large slanting letters, as, A, B, C, &c. Working points of framing, indicated by small printed letters, as, a, c, e, m, n, &c. Working points of moveable pieces, indicated by small written letters, as, a, c, e, m, n, &c.

"In lettering drawings the axes are to be lettered first. Three alphabets may be used, the Roman, Etruscan, and written, as —

A, B, C, &c. A, B, C, &c. A, B, C, &c.

These should be selected as much as possible, so that no two axes which have arms or parts crossing each other shall have letters of the same alphabet. Having lettered the axes, all the parts on them, whether loose or absolutely fixed to them, must be lettered with the same alphabet, care being taken that on each axis the parts most remote from the eye shall have letters earlier in the alphabet than those parts which are nearer. It is not necessary that the letters should follow each other continuously, as in the alphabet; for instance, D, L, T, may represent three wheels on the same axis, D, must be the most remote, L, the next, and T, the nearest. The rule is, that on any axis a part which is more remote from the eye than another must invariably have a letter which occurs earlier in the alphabet. By

these rules very considerable information is conveyed by the lettering on a drawing; but, still more to distinguish parts and pieces, an index on the left-hand upper corner is given to each large letter; this is called the "index of identity," and all parts which are absolutely fixed to each other must have the same index of identity, no two parts which touch or interfere with or cross each other on the drawings must have the same index of identity. This may generally be done without taking higher numbers than nine. All pieces which are loose round an axis must have a letter of the same character, Roman, Etruscan, or writing, but a difference in the index of identity will at once inform us that it is a separate piece, and not fixed on the axis. For example, <sup>6</sup>D, <sup>6</sup>L, <sup>8</sup>T would indicate that the three wheels mentioned above were all fixed on the same axis; but <sup>6</sup>D, <sup>8</sup>L, <sup>6</sup>T would at once show that D and T were fixed to the axis, and L loose upon it.

"I shall now endeavour to explain how the transmission of motion and action of one piece on another is shown. Beginning from the source of motion, each part is written down with its working points: those of its points which are acted on are placed on the left-hand side; those points where it acts on other pieces are placed on the right-hand: if there are several small letters, a bracket connects them with their own large letter.

$$\begin{pmatrix}
 n \\
 o
\end{pmatrix} P \begin{cases}
 a \\
 e
\end{cases}$$

The pieces being arranged, arrow-headed lines join each acting or driving point of one piece with the point of another piece, which it drives or acts on. When a machine is complicated it is usually necessary to make two or three editions before all the parts can be arranged with simplicity; but when done, the trains, as they are called, indicate with the utmost precision the transmission of force or motion through the whole machine, from the first motive power to the final result. It is, however, one of the principles of the notation to give at one view the largest possible amount of information, provided that no confusion is made: it has been found

that, without in any way interfering with the simplicity of the trains, a variety of information on other points may be conveyed. For instance, whilst looking at the trains, it is often convenient or necessary to know something of the direction of motion of the piece under consideration, and by the use of a few signs placed under the large letters we can convey nearly all that is wanted in this respect. Again, though the drawings of a machine are specially intended to give the size and shape of each piece, yet, by the use of some signs of form which are placed above the letters, the form of each piece may be indicated. It is found that these signs do not confuse the trains, but, on the contrary, extend their use, by making the information they convey more condensed and more easily accessible. I now pass on to the cycles, as they are termed, or to that part of the notation which relates to the time of action of the different parts of a machine. The cycles give the action of every part during the performance of one complete operation of the machine, whatever they may be. Each piece has a column of its own, and the points by which it is acted on are placed on its left hand, and the points by which it acts on other parts are placed on its right; and each working point has its own column. whole length of the column indicates the time occupied in performing one operation, and we divide that time into divisions most suited to the particular machine. each division of time that a piece is in motion an arrow up or down its column indicates the fact; and during the time of action of each working point an arrowin its own column shows the duration of its action. The times thus shown are of course only relative, and not absolute time; but it would be easy to show both, by making the divisions of the columns correspond with the number of seconds or minutes during which the machine performs one operation. The arrows which point upwards indicate circular motion in the direction 'screw in;' and the arrows which point downwards 'screw out;' where the motion is linear, the downward arrow indicates motion from right to left."

Mr. H. P. Babbage then illustrated this system of notation by directing attention to the notation of the difference engine

#### APPENDIX F.

of Messrs. Sheütz. This machine contains several hundred different pieces, yet the trains showed at one view how each piece was acted on, and how it acted on other pieces. The cycles gave with equal clearness the time of action of each piece. In fact, the two pieces of paper before the section gave a complete description of the machine, and with the drawings rendered further description unnecessary.

## G. —I. Disclaimers, &c.

THE following form of disclaimer (a) was allowed by the solicitor-General after the decision against the plaintiff in the case of *Holmes v. London and N. W. Railway Company* (b):—

Holmes' disclaimer.

To all to whom (&c.). I, David Holmes, send greeting [reciting grant of Letters Patent to Harrison, 28 Jan. 1841, enrolment of specification, and assignment to Holmes on 5 Nov. 1850]. And whereas it has been deemed that the said specification may be construed as claiming not only the combination of parts forming the improved turn-table therein described, but, also, each of the several parts forming such combination and improved turn-table: And whereas the said specification was not intended to be construed so as to extend the claim of invention therein contained to several matters and things combined together, for the purpose of forming an improved turn-table, as described in the said specification, separate or apart from the combination and application of such matters and things, for the purpose of forming such improved turn-table; and I, the said David Holmes, am therefore deirous, with the leave of Her Majesty's Solicitor General, to enter with the Clerk of the Patents of England such disclaimer as hereinafter contained or expressed:

Now know ye therefore, that I, the said David Holmes, by and with leave of Sir Richard Bethell, Knt., Her Majesty's Solicitor-General, do hereby disclaim the revolving plates, or upper platforms, stays, braces, arms, supports, posts, matters, and things mentioned in the said specification, and used in forming improved turn-tables, as described in the said specification, as being individually separately or apart from the combination or application thereof, for the purpose of forming an improved turn-table, as described in the said specification, any part of the said invention mentioned in the

<sup>(</sup>a) Macrory's Reports, p. 32.

<sup>(</sup>b) The disclaimer was, however, not filed, the term of the patent having nearly expired.

said Letters Patent and specification. And I, the said David Holmes, do further declare that the above-written disclaimer is not intended to extend the exclusive right granted by the said Letters Patent, and that these presents shall not extend the said exclusive right in any way whatsoever.

In witness, &c.

#### II.

The following is the disclaimer and memorandum of al- Bateman's disteration allowed by the Solicitor-General to be filed in claimer. relation to the patent of Bateman and Moore, Jan., 1848. (12.032.)(a)

To all to whom, &c. Whereas we, the said J. F. Bateman and A. Moore, lately brought an action in the Court of Exchequer, at Westminster, for an infringement of the above Letters Patent against a certain defendant, T. W. Gray, and obtained a verdict against the said defendant: And whereas, upon an unsuccessful application by the defendant to the said Court to set aside such verdict, the Lord Chief Baron, in delivering judgment of the said Court upon that application, intimated that there was weight in an objection urged on behalf of the defendant, that the invention as claimed in and by the specification was not the combination of parts. which the jury had found to be new and to have been invented by us, but the several patents of such combination: And whereas the said Lord Chief Baron, in delivering his said judgment, suggested that the plaintiffs would do well to consider whether it might not be advisable to apply to the law officer of the crown to prevent that question as to the specification arising at any future time: And whereas we, the said J. F. Bateman and A. Moore, are desirous, for the reason aforesaid, to enter a disclaimer and memorandum of alteration as hereinafter contained and expressed, and have obtained leave of Sir Richard Bethell, Knt., Her Majestv's Solicitor General, to enter such disclaimer and memorandum of alteration: Now know ye, that we, the said J. F. Bateman

<sup>(</sup>a) Macrory's Reports, 91. The argument before the law officers is reported at p. 116. of the same volume.

and A. Moore, do hereby alter the said specification by omitting the words "First," "Secondly," and "Thirdly" at the commencement of the claiming clauses at the conclusion of the said specification; and in the place of the said word "Secondly" we do substitute the word "or," and in the place of the said word "Thirdly" we do substitute the word "and," so that the concluding paragraph of the said specification, as the same will stand when altered as aforesaid, will be as follows: - Having now described the nature and object of our said improvements, we would remark that we claim as our invention the application for the purpose of drawing or letting off water, or other fluids of a valve of a less specific gravity than water, constructed of, or coated with vulcanised india-rubber, gutta-percha, or other suitable compressible elastic material, and which closes, or is kept closed, by the pressure of the water; or the application, for similar purposes, of a globular valve of the same or greater specific gravity than water, and constructed or coated as above described, which, without mechanical aid, will close by the pressure of the water: and the opening of valves by means of a key or tube, so applied as to force the valve open against the pressure of the water or other fluid, and through which key or tube the fluid escapes; such key or tube being attached to the box or barrel, or other fixed part of the valve, without the aid of a thread or screw on such box or other fixed part.

In witness, &c.

#### III.

The following disclaimer shows one manner of altering the specification by reference to pages, lines, and words.

#### PRICE'S DISCLAIMER.

Filed 5th November, 1853.

Price's disclaimer. In the Matter of a Patent granted to Astley Paston Price, of Margate, in the County of Kent, on the First day of October, One thousand eight hundred and fifty-two, in the sixteenth year of Her Majesty's reign, for his Invention of "Improvements in the Manufacture of Citric and Tartaric Acids, and of certain Salts of Potash, Soda, Ammonia, Lime, and Baryta."

Disclaimer proposed to be entered by the said Astley Paston
Price at the Office of the Commissioners of Patents for
Invention, pursuant to an Act passed in the fifth and
sixth years of the reign of His late Majesty King
William the Fourth, intituled "An Act to amend the
Law touching Letters Patent for Inventions," and also
to an Act passed in the fifteenth and sixteenth years of
the reign of Her present Majesty Queen Victoria,
intituled "An Act for amending the Law for granting
Patents for Inventions."

(The words and figures within brackets denote the corresponding line and page in the printed specification.)

Whereas since the date of the said Letters Patent and of the filing of the specification, I have discovered that parts of the said invention, as described in the said Letters Patent and specification, are of no use, benefit, or advantage to the public:

Now know ye that I, the said Astley Paston Price, do hereby disclaim the words "or strontia" contained in the fourth line from the bottom of page 1. [top of page 4.] of the said specification so as aforesaid filed in the Office of the Commissioners of Patents for Invention; also the words "citrates of strontia" in the third [fifth] line from the bottom [top] of the same [fourth] page; also "and strontia" in the second [seventh] line from the bottom [top] of the same [ fourth ] page; and the words "or 60 parts by weight of sulphide of strontium" in the tenth [ fourteenth ] line from the bottom of page 2. [top of page 5.] of the said specification; the words "or chloride of strontium or nitrate of strontia" in the ninth [thirty-fifth] line from the top of page 3. [5.]; the words "three hundred and eighteen parts of nitrate of strontia" in the twenty-fifth [nineteenth] line of of the same [sixth] page; and the words "two hundred and forty parts of chloride of strontium" in the twenty-seventh

[twenty-first] line of the same [sixth] page; the word "strontia" in the twelfth [first] line from the bottom of the same [top of the seventh] page (&c., setting forth the alterations required for the rest of the specification, and it then proceeds).

And also the words "or with sulphites of strontian" in the seventh [second] line from the top of page 19. [29.]; and the words "tartrate of strontia" in the tenth [sixth] line of the same [twenty-ninth] page; all which words, parts, or portions relate to matter which I believe not to be a necessary or useful part of the said invention.

And I am also desirous of disclaiming that further part of the said specification set out as follows, commencing at the second [third] line from the top of page 17. [26.], and ending at the ninth [fifth] line from the bottom of the same [top of the twenty-seventh] page. (Here follow thirty-five lines of print, and it then proceeds.)

All of which said last-mentioned portion was not, on the day of the date of the said Letters Patent, new as to the public knowledge, use, or exercise thereof, to the best of my knowledge and belief. (a)

In witness whereof, &c.

#### IV.

Nicklin's disclaimer. The following disclaimer and memorandum of alteration, filed for Nicklin's patent, Nov., 1853 (2570.), shows other reasons for so disclaiming than those cited in the last example, and the manner of directing the amendments in the words is also different.

(The words in Italics are written in red ink in the original.)

Whereas since the filing of my said specification, I have been advised that the description therein of my said invention is not so clear and certain as it is desired it should be; I have also been advised that as several of the materials em-

<sup>(</sup>a) In this instance the amended specification is not given. The original specification occupies twenty-six pages.

ployed by me in making my lubricating compounds have before been used for lubricating machinery, a disclaimer should be entered to the said specification; and I have been further advised, that as the word "glutinous" is considered to apply to other matters than products from animal substances, and as I only intended to include by such word animal glutinous matters, I have been advised to disclaim all right to the use of glutinous matters which are not obtained from animal substances. For which reasons I do hereby alter and disclaim parts of my said specification, as follows:—

"The nature of my said invention consists in this: that I take any animal substance, as skin, flesh, and other parts of animals, and I reduce the same by steaming or boiling to a gelatinous or glutinous liquid," as is well understood, "and then mix the same with palm or other vegetable oil, or palm and other vegetable oil together, soda or other alkali," that is to say, carbonate of soda or carbonate of potash, "or soda and other alkali together, whiting or limy matter, or whiting and limy matter together, nitre and water, and mix and combine the whole well together, thereby producing "lubricating "compounds, which may," if desired, be colored, "either, say green, blue, or rose-colour, whereby" [&c.; the patentee does not give the amended specification in a distinct and separate form].

"In witness whereof, I, the said John Banks Nicklin, have hereunto set my hand and seal, this Fourteenth day of March, in the year of our Lord One thousand eight hundred and fifty-five.

Filed 22 March, 1855."

## v.

In the following case the alterations to be made in the specification are not particularly mentioned, but stated generally, and then the specification as altered is given entire:—

# Young's Disclaimer and Memorandum of Alteration. (a)

Filed 18th May, 1854.

In the Matter of a Patent granted to James Denoon Young, of Westminster, in the County of Middlesex, Engineer and Manufacturer, for "Improvements in Casting," bearing date at Westminster, the Twenty-fourth day of October, One thousand eight hundred and fifty-three, to which Letters Patent a Specification was duly filed.

Young's disclaimer. Disclaimer and Memorandum of Alteration proposed to be entered by the Patentee of the said Letters Patent, according to the Statute in that case made and provided.

Whereas in the specification filed to the said Letters Patent the invention was described to consist, in the first place, with reference to castings not requiring to be chilled or hardened, in a mode or modes of applying hot water and steam or vapour to the moulds or patterns, and in some cases to the cores used in such castings; and in the second place, with reference to castings requiring to be chilled or hardened, in applying cold water to the moulds or patterns, and in some cases to the cores used in such castings.

And whereas since the granting of the said Letters Patent, I, the said James Denoon Young, have discovered that the invention as described under the second head, viz., as consisting in applying cold water to the moulds or patterns, is contained in the specification of a patent granted to Edward Hammond Bentall and James Howard, for "Improvements in the Mode of Chilling Cast Iron," and bearing date the Twenty-second day of April, One thousand eight hundred and fifty-two.

<sup>(</sup>a) The specification in this case was filed 24th April, 1854, and the disclaimer three weeks later. The specification is therefore printed by the Commissioners "with the disclaimer annexed."

For which reason I wish to disclaim, and I do hereby disclaim, all parts of my said specification which may claim any right or title to the use of cold water applied to the moulds or patterns, and in some cases to the cores, as described under the second head of my invention, with reference to castings requiring to be chilled or hardened; and I wish to insert in certain places the word hot before the word water, so as to exclude the reference to other than hot water in such places, and to make certain verbal transpositions required to make the sense of the whole document evident.

And I do hereby declare that my said specification, when so amended, will read as follows. [Here follows the specification at length as altered.]

#### VI.

Disclaimer of the whole claim. Lawes' Patent, 1852 (92.). Disclaimer and Memorandum of Alteration proposed to be Lawes' disentered by the Patentee of the said Royal Letters Patent, claimer. according to the Statute in that case made and provided.

Whereas in the specification filed to the said Royal Letters Patent the claim therein made expresses itself in the following words: -- " Having described the nature of my invention, and the manner in which the same is to be performed, I claim the method described of tilling or turning up the ground by means of tynes or prongs projecting from a rotatory cylinder, as herein-before set forth (a): And whereas since the granting of the said Royal Letters Patent I, the said Thomas Lawes, have discovered that the said words are liable to misinterpretation, and that they convey other than the meaning I intended them to do. I wish to disclaim them, and to have them removed altogether from the said specification, in order that no misconception, double meaning, or misinterpretation whatever should exist therein. This alteration being effected, the specification will read thus." [The amended specification is then given at length.]

<sup>(</sup>a) The claim recited was the only claim in the specification.

#### VII.

Errors in letter- Memorandum of Alteration to rectify errors in the letters ing drawings. of reference to drawings filed after the assignment of the Patent (1197.).

MEMORANDUM OF ALTERATION OF BELLFORD'S PATENT. Filed 18th March, 1854.

In the Matter of a Patent granted to Auguste Edouard Loradoux Bellford, of the United Patent Offices, 16. Castle Street, Holborn, London, for "Certain Improvements in Machinery for Grinding and Reducing Gold Quartz to an Impalpable Powder, and Amalgamating the said Ground Quartz with Quicksilver, the same being applicable also to the Pulverising and Washing of Ores," bearing date the Twenty-ninth day of December, One thousand eight hundred and fifty-two, to which a Specification has been duly filed, and which said Letters Patent have been duly assigned to Hiram Berdan, of New York City, in the United States of America, by Indenture bearing date the Eighth day of August, One thousand eight hundred and fifty-three.

Memorandum of Alteration proposed to be entered by the said Hiram Berdan, as such assignee as aforesaid, pursuant to the Statutes in that case made and provided.

(The words in Italic and the letter within parentheses are written in red ink in the original.)

Berdan's memorandum of alteration. Whereas the said Letters Patent were applied for and granted to the said Auguste Edouard Loradoux Bellford, as my agent, and for an invention made by me: And whereas, since the filing of the said specification and the assigning of the said Letters Patent, I have ascertained that the said Auguste Edouard Loradoux Bellford did, in error, annex to the said specification drawings, in which the letters of reference, though they agree with each other, do not agree with the written parts of the said specification; I therefore wish to alter, and I do hereby alter, the said specification,

by striking out all the letters of reference in the written parts thereof; and in order to make sense of the specification, as it will appear when so altered, I make the slight verbal alterations shewn by red ink in the copy of the specification hereunto annexed, and I retain the letters of reference now on the drawings of the said specification, as they will aid the eye of the engineer and workman in tracing the forms and positions of the several parts in the different figures of the drawings.

In witness whereof, I, the said Hiram Berdan, have hereunto set my hand and seal, this Thirteenth day of March, in the year of our Lord One thousand eight hundred and fifty-four.

HIRAM BERDAN. (L.S.)

Witness,

J. A.

The specification is then given at length, with alterations.

## H. Curious Titles, Descriptions, &c.

#### T.

Haddon's patent.

The title of Haddon's Patent, July, 1850 (13,162.), is "Improvements in the Construction of Carriages and of Wheels, and in Brickwork."

From an abstract of the specification (a), it appears that the improvements in carriages are threefold, those in wheels thirteen, and those in brickwork two in number. There are no claims.

#### П.

Technical title.

Fouque's Patent, Oct., 1853 (2436.), is granted for "a Fortune Rudder in Bronze." The specification describes a rudder which is brought into use only when the ordinary ship's rudder is injured by misfortune.

#### TII.

Multifarious title.

The following multitudinous title belongs to a patent granted 12 Aug., 1721, to Isaac de la Chaumette (b):—
"Cannon, fusees, and pistols; swords which serve for bayonets; powder-fiasks, two case-pistols, of which a carbine may be made; bomb or grenade; breast-plates; fusee lock, firing fusees horizontally; machine to cure smoky chimneys; snuffboxes; penknife and pocket-knife; pocket-scissors; buckles; machine for drawing lotteries; double counters for drawing lotteries; turning mattress for armies and hospitals; picture serving as a tester to a bed and an ornament to a room; coaches and chaises; preventing shipwreck; candlesticks and rings; lantern; machine for holding glasses at table."

#### IV.

Deceptive title.

Example of a title which does not allude to an invention, described in the specification.

Bramah, 9 May, 1785 (1478.). "A grant unto Joseph

(a) 54. Mechanic's Magazine, p. 39.

<sup>(</sup>b) No. 434. in Appendix to Reference Index, containing abstract of unenrolled specification (A. D. 1855).

Bramah, of Piccadilly, in the County of Middlesex, engine maker, of his new-invented hydrostatical machine, and a boiler, on a more peculiar principle than any other ever yet made known to the public, in which said machine may be employed the power of air, steam, or any other elastic vapour, for the purpose of working all kinds of mechanical and other engines; and such machine is also capable of becoming the primordial or first cause of motion in all kinds of inanimate movements whatsoever, and may be employed instead of pumps, or any other hydraulic engine, for the purpose of raising water through any given space, and will for that purpose be found much more effectual, durable convenient, and less expensive than any other engine or pump yet known or in use, to hold," &c.

In the specification was contained the description of a screw-propeller, which, it will be observed, is not alluded to in the title.

In the year 1675, a patent was granted to "several truly Prospective loyal and indigent officers," for the profits of the Royal Oak lottery, and all other lottery and lotteries whatsoever invented or to be invented. (a)

#### VI.

The practice of designating inventions by high-sounding Pompous titles. or remarkable titles, was common in the older patents. In the patent of W. Drummond (b), several of the machines invented are named as follows: - the thundering staff, box dragoon, fiery waggon, flat scourer, cavalier errant, leviathan, sea postillion, lynx eyes, &c.

#### VII.

In A.D. 1456, a patent was granted by the authority of Facely's pa-Parliament to John Facely and others "to make that most precious medicine called the 'fifth essence' and the philosopher's stone and to practise the transmutation of metals into true gold and silver."

- (a) Weale's Progress, p. 209.; and see post, p. 128. X.
- (b) Ib., p. 162.

#### VIII.

Old specification. In the list of patents drawn out by Queen Elizabeth's Parliament, it was stated that one was granted to John Spilman for a paper-mill, and what may be considered a specification of the invention was published under the following title: "A description and playne discoverie and the whole benefits that paper brings, with rehearsal and setting forth in verse a paper myll built neare Darthford, by Master Spilman, jeweller to the Queen's Majesty."(b)

#### IX.

Ancient manner of opposing the grant. About the latter end of King James II.'s reign, Quare opposed the grant of a patent to Barlow (for a repeating watch), on the ground that he (Quare) had invented something similar. A watch of each invention was produced before the king and council. "And the king on tryal was pleased to give the preference to Quare's watch," which circumstance was notified in the Gazette. (c)

Another case of opposition between rival patentees occurred on May 12. 1686.(d)

#### X.

Substitute

In the specification of Philip's Patent, July, 1850 (13,164.), there are the two following claims:—

- "3. Believing it to be entirely new, I claim the construction of a machine for cutting turnips, in which the hopper has an oscillating motion on the fixed body of the machine.
- "4. Should it at any time be discovered that an oscillating motion of the kind described is not new, I claim the oscillation being on a horizontal axis, whereby the turnips in the fixed part of the machine contribute in a great measure to displace those in the moveable hopper." (e)
  - (a) "Progress of Machinery," &c. Weale, p. 37.
  - (b) Ib., p. 97.
  - (c) Ib., p. 212.
  - (d) Ib., p. 221.
  - (e) 54 Mechanic's Magazine, p. 37.

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